ABSTRACT
The Poetic Streetscape

by
Joan Wegman Profeta

Suburbia continues to consume more and more of the rural countryside, replacing the
vistas of open fields and farmsteads with prolific road patterns and individualized
residential structures. As the new growth continues, the local character disappears. In
addition, the new development, with the exception of some individualized works, offers
little in aesthetic replacement value. In response, the following work develops a Coun-
try Theory for aesthetic building in rural areas. As suburban growth revolves around
streets, the theory is built around streetscape. What is streetscape, and in particular,
what should it be when building streetscape in the country?

The discussion begins by looking at Perceptual Theory, or how we see. What makes
objects and spaces more "visual", i.e. noticed? Aesthetic Theory follows, explaining
how the visual world can be most beautifully designed. The town of Short Hills, New
Jersey is studied for specific examples of this theory's expression.   A discussion on
Country Landscape Theory analyses the physical nature of the countryside, both natural
and man-made; Suburban Country Theory is a synthesis of the preceeding theories;
Country Theory is a visual illustration of the actual process; and Collaborative
Thoughts reinforces the concept. The discussion ends with an outline for future devel-
opment of aesthetic streetscape in a rural setting.

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by
Joan Wegman Profeta

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This thesis is dedicated to
Kristy and Tori

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Streetscape

I believe that in most cases, the traditional patterning of suburban streets leads to both visual monotony in the layout of the streets, and a blight of aesthetic nature to the street's surrounding architecture and spatial configurations (fig. 1). The reason for this, is that traditional development is controlled by zoning ordinances which are not designed to consider the concept of "streetscape" as an important element in

Figure 1.
In Flemington, New Jersey, new traditional suburban development produces a visual monotony, especially in the layout of the streets.

suburban design. Instead, streets are designed to most expeditiously move automobiles, trucks, fire equipment, etc. along to every house. In fact, an idealized picture of a typical suburban street would show straight wide ribbons of paving with a series of adjoining "car castles" within which dwell people (fig. 2). As long as the roadway engineer and the automobile take a dominate role, the layout of suburban roads will continue in the same fashion. Of equal importance in the traditional suburban layout is

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the maintenance of each of the "car castles" as distinct principalities. Within the individual plots, aesthetics become a matter of personal taste. The only restriction is that each castle be built within a three-dimensional central space of the individual kingdoms. This is suburbia, king auto with its intendant, independent principalities.

I propose that this should be changed. Suburban street layouts should not be determined solely by the ease of automobile traffic, nor should houses only focus on the preservation of their own rights without the consideration of the collective visual whole. The layout of the street, with its adjacent houses and their spaces should be designed to foster and develop the feeling of 'streetscape.'

Streetscape is defined as the artful visual experience of the path, "the channels along which the observer customarily, occasionally, or potentially moves" (Lynch 47). Gordon Cullen, in The Concise Townscape, says that "one building standing alone in the countryside is experienced as a work of architecture, but bring half a dozen buildings together and an art other than architecture is made possible" (7). In suburban development, I believe this "art other" should be "streetscape aesthetics."

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Some people express this concept differently. They say that one street "feels" better than another (Pasadena 3). As to why? This might be difficult for them to answer, because much of what differentiates places is a matter of aesthetics. And, aesthetics are difficult to define, as John Costonis in Icons and Aliens says: "Aesthetics, too, has its problems in listing beauty's ingredients" (9) However, this does not invalidate its value or importance in our daily lives, or invalidate the fact that aesthetics through streetscape should be a focus of our environment (fig.3). As Andrew Jackson Downing said in reference to the value of beauty: "To desire to surround ourselves with such sources of enjoyment, rather than be content with mere utility, is only to acknowledge the existence of sentiment which, next to the religious one, is the purest and noblest part of our nature" (The Architecture of Country Houses 9).

Figure 3.
In suburbia, aesthetically designed homes in harmony with each other and nature provide a well structured and enjoyable environment.

Streetscape is a visual experience. To develop a theory for its expression, it must be viewed in this light. Vision is a skill we develop as children. As children, by touching and putting everything possible into our mouths, we discover the form of objects. This is the experience, we see something, we touch it, we taste it. We learn about what it is, so that eventually we don't have to touch it or taste it to know

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what our visual stimuli are telling us. At this point, it is possible to move about in our world in a knowledgeable manner relying solely on our visual sense. Vision becomes our means of defining our environment and being able to operate within it. In The Image of the City, Kevin Lynch suggests that a visually, well structured environment is important because it provides a sense of security and a good basis upon which to build enriching experiences (4).

Additionally, I feel streetscape should be particularized by characteristics of the environment in which it is developed. In rural areas the visual experience of the path should include elements from the rural countryside (fig. 4); its beauty and organic form should be integrated with the spaces and physical structures of residential living (fig. 5).

Perceptual Theory

The experience of the street is important to any community development, as it creates a feeling of identity, develops the sense of neighborhood and assists in way-finding. In his book, The Image of the City, Kevin Lynch explores this concept as it relates to cities. He finds through extensive research, that the

Figure 4.
Streetscape should be particularized by both man-made and natural elements from the rural countryside.

Figure 5.
In rural Hunterdon County, New Jersey, one of the patterns of the rural countryside is the free-form nature of the topography with its integration of bodies of water and natural vegetation.

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visual composition of the street is most influential in developing a sense of security with one's environment and in providing a structure within which to build an enriching visual experience. He says: "Like any good framework, such a structure gives the individual a possibility of choice and a starting point for the acquisition of further information" (4). By providing this legible starting point the observer is free to add additional environmental images., thus enriching his emotional, everyday experiences (4). Creating a visually well formed, thus distinct and remarkable place "would invite the eye to greater attention and participation" (10).

To test the veracity of this experience in suburbia, I conducted a survey among sixteen high school students in their home town. The survey was designed to 'see' how well certain visual elements affected their perception of suburbia. The survey was not sufficiently broad based to draw any major conclusions on visual imaging. However, it did offer some insights. One, was that streets are important. All of the students used streets as references for their answers. Also, the different visual nature of streets was noticed. When asked in the questionnaire to differentiate areas, the students did so by street description. They described what they liked and did

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not like about certain streets; the types of houses, the space between the houses, the number of trees, the amount of flowers, and the noise factor. Streets and their compositions were of major importance to the students interviewed. See Addendum A for questionnaire.

We are affected by our surrounding environment or landscape (ix). Lawrence Durrel confirms: "We are children of our landscapes; it dictates behavior and even thought in the measure to which we are responsive to it" (Jackle 16). With streetscape, this surrounding environment is the visual experience of the street. As such, it is important to discover how this landscape can be most visually attractive. Perceptual theory looks at this experience.

John Jackle, a professor of landscape architecture at the University of Illinois, has done extensive research on the subject and has written a book "on seeing the landscape as visual display" (ix). In The Visual Elements of Landscape, he presents: "What attracts the eye in the visual world? What do people tend to see when they encounter their surroundings" (ix)?

For Jackle, the experience of streetscape is realized through the visual phenomena of what he and other

visual theorists call, 'serial vision.' Cullen describes this act as it refers to townscape, "although the pedestrian walks through the town at a uniform speed, the scenery of the towns is often revealed in a series of jerks or revelations. This is what we call Serial Vision" (9). Arnheim, in the Dynamics of Architectural Form refers to this process when he states: "As we walk or drive, the environment becomes a happening in which things follow one another and change shape while we change position" (69).

The concept of serial vision is important because it points to the dynamics involved in viewing streetscape. Our streets are not static environments perceived as isolated images; rather, their view is a composite of preceding, immediate, and anticipated images (9) (figs. 6,7,8,9).
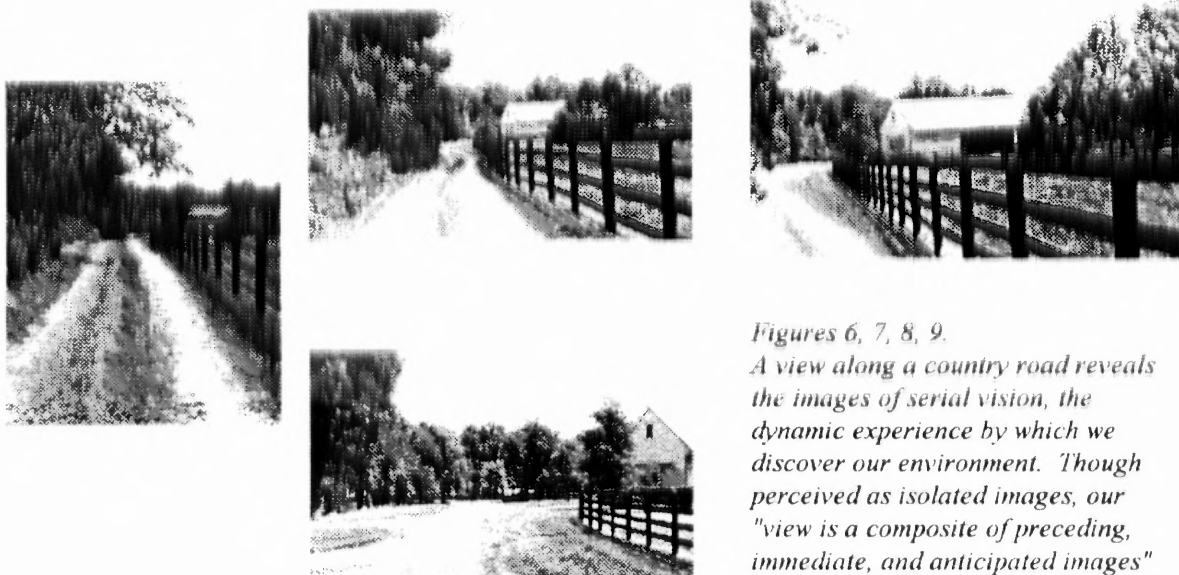
Figures 6, 7, 8, 9.
A view along a country road reveals the images of serial vision, the dynamic experience by which we discover our environment. Though perceived as isolated images, our "view is a composite of preceding, immediate, and anticipated images" (9).

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The act of serial vision reveals the images of streetscape, while visually distinguishing characteristics make the streetscape's composing elements more or less visually attractive. Jackle describes some of these characteristics and how they engage a viewer's attention. "Objects are distinguished according to the patterns of light intensity transmitted from their surfaces." The most elemental objects of our visual world are of surface and edge (20). The greater the boundaries between the two, the greater the visibility (fig. 10).

Additionally, similarity of size, color, shape or texture help the eye to combine elements into groups or singular objects (figs. 11, 12). Also, linear elements tend to lead the eye along (fig. 11) wavy ones develop a sense of rhythm (fig. 13) and the eye rests when a form acts as a closing element in a large block as it were, which conveys the feeling of enclosure (fig. 14).
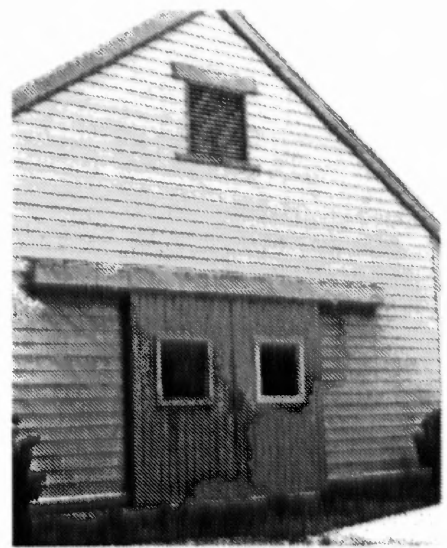
Figure 10.
Visibility is afforded by a definite transition between surface and edge in the horizontal siding on a barn in Upperville, Virginia. Between the doors and the wall, increased visibility results from the depth of the edge of the door.

Figures 11, 12.
A difference in size between these two barns maintains their singularness, while a similarity of color, shape, and texture help the viewer group them together as belonging to the same farm.

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Figure 13.
In figure 11, the linear elements of the fence tend to lead the eye along, while in figure 13, the addition of the snow fencing produces an almost wavy texture which develops more of a sense of rhythm than of movement.

Looking at this type of dynamic vision helps to understand the special experience of the streetscape, that there is excitement in the composition and its kaleidoscopic configuring. However, it does not explain the composition of the individual images of which serial vision is composed. For this understanding, vision itself and its singular images are looked at.

Viewing, Jackle points out, has several components. They are: 1) the view and the viewer; 2) the distance between the view and the viewer; 3) the degree of definition between, foreground, middleground, and background; 4) the enframement or bounding of sight; and 5) the existence of landmarks or focal points which attract the eye (39). If our field of vision sweeps to far horizons, unshaped and uninterrupted, this view is a "panorama" (fig. 15). However, more commonly, these components variously combine to create different types of "vistas," a vista being a bounded or shaped view (39).

Figure 14.
The gate at the end of the lane acts as a closing element. Along with the fence it creates a feeling of enclosure.
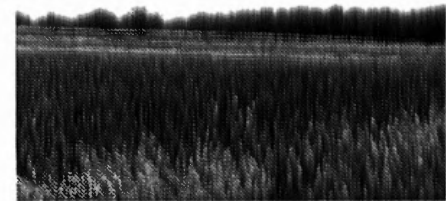

Figure 15.
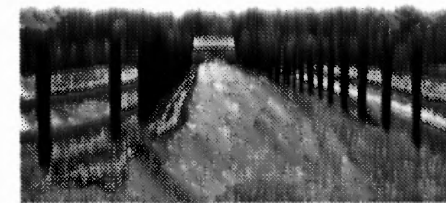*A panorama is an unshaped and uninterrupted view of far horizons.*

Figure 15a.
A vista is a shaped view. The barn at the end of the lane creates a specific type of view called a " terminated vista." This type conveys a feeling of restfulness and stability as the viewer 'knows' the ultimate goal.

Jackle describes a "terminated vista" where a view is limited in the middleground by a landmark or focal point (fig. 15a). The vista in enframed with the terminating focus conveying a feeling of completeness. There is a restful nature to this view with a feeling of stability created by the viewer visually 'knowing' the ultimate goal. On the contrary, the "deflected vista" conveys an unstable feeling (fig. 16). Because of the angle of the landmark or some incompleteness in the focus which invites the eye to look beyond the immediately, enframed view, a feeling of expectation of the 'next' is developed.

Another type of vista is the "screened vista," which partially obscures a distant focal point" (44) (fig. 17). Fences, arbors, or some type of foliage provide opportunities which force the viewer to make an effort to see what lies beyond. This develops a strong interaction between the viewer and the object viewed. A particular type of screened view is a "truncated vista" whereby the middleground is hidden from view (fig. 19). Once again the viewer becomes involved with the view as only through some sort of position movement can the viewer actually enframe the entire vista.

Figure 16.
The overhanging trees along this lane produce another type of view, called a "deflected vista." A feeling of expectation of the next is created by the trees inclining our vision to 'look beyond' for another view.

Figure 17.
The foliage of the trees prevents the passer-by from seeing what lies beyond.

Figure 18.
Only with a change in position can there be a view of the barn beyond the trees. Figures 17 and 18 are an example of a "screened vista."

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Figure 19.
The rise of the road prevents the viewer from seeing the total view. This hiding of the middle view is called a " truncated vista."

Additionally, the "horizontal vista" is explained as having boundaries which exist in both the horizontal and vertical planes (fig. 20). If this type of view is entirely enframed, as when looking through an arch or a key hole, it becomes a "peephole vista" (fig. 21). Also, there is the "expanding vista" where the sight goes from a restricted to a more expansive horizon (fig. 22). Jackle makes the point that our world become more understandable and thus imageable if objects in our environment are so arranged that they carefully construct these vistas (45).

Equally important as the concept of vista is the view or views which are experienced through this process. Without a view, there would be no need for a vista. Views are arrangements of spaces and physical structures which may or may not contain a focal point. Space, when a composing element of the view, is not physically experienced. It usually remains evocative of similar, previously experienced spaces.

Figure 20.
A " horizontal vista" of the barn is created by the view being bounded in the vertical by the trees and in the horizontal by the fence and the leaves.

Figure 21.
On a sheep farm in New Zealand, a "peephole vista" occurs when the viewer looks through the totally enframed opening created by the giant tree trunks.
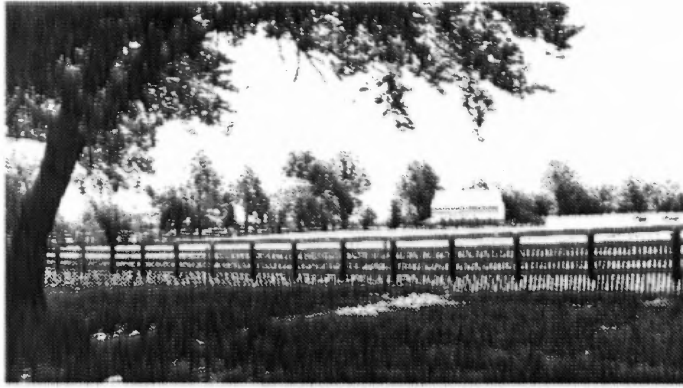
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Figure 22.
Looking out from the restricted leaf canopy, the viewer sees over the top of the fence, the " expanding vista" of the field, barn, and the trees beyond.

Whether experiential or evocative, each type of space creates a different feeling in the viewer. As Jackle describes them: first, there is the "inverted" or bounded space, which is the most confining type with no major openings to the outside world (fig. 23). Here the viewer can visually relax his or her eyes and is able to quickly scan the bounded surroundings. Interest is created by increasing the complexity of the enclosing volume.

Figure 23.
In a courtyard in Murry Hill, New Jersey, an "inverted," or bounded space is created around a fountain by the encircling houses and thick vegetation. In this type of space, there are no major openings to the outside world.

The second type, or "strategic" space uses open and closed edges (fig. 24). There is both a feeling of within and without, security and freedom. A landmark placed within the center of either an inverted or strategic space, especially if the space is circular, adds the additional feature of tension whereby the viewer can feel the forces going out from the center only to be contained by the encircling walls.

Figure 24.
The houses around this courtyard, with their adjacent openings, together create a "strategic space," a space which is both bounded and unbounded.

Lastly, there is the "compound space" which does not support a feeling of containment but only of "hereness"

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about to be "thereness" (fig. 25). In this type of space there is little feeling of containment; the eye constantly searches for a "vista" or some terminating landmark with which to define the space. Also, there

is a special space which is not so much defined as implied. It is the space under a canopy or near a street element. It invites the eye to rest both by its visual form and by the eye's recognition of a place for the viewer to physically pause. This type of space is called a 'point of rest' (fig. 26)

An additional dimension important to our discussion of spaces is that of height. There is a necessary or appropriate viewer to object, which if incorrect can

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as easily destroy the feeling of containment as elimi-

nating one side of an inverted space (figs. 27, 27a).

There is also the concept that space "is created as a

relationship between the objects with the relationship

among things being more important than the things

themselves (92) (fig. 28). This space appears to be

dictated by the objects themselves through a "field of

force" seen as surrounding the objects (61) (fig. 28).

The space is apparent in both the horizontal and

vertical, with the vertical dimension being most

legible over well defined, enclosed spaces. The

ceiling which is defined by the sky is seen as being

approximately three to four times the height of the

tallest building (111) (fig. 29).

In addition to the differently configured types of

spaces, Jackle looks at the special characteristics of

the elements which compose the views. It is these

physical attributes of both structure and space which

Figures 27, and 27a.
The height of the object and the
distance of the viewer to the object is
important in spatial definitions. A
viewer standing near the brick wall in
fig. 27 feels a part of an intimately
defined space. A viewer more re-
moved looks beyond the wall to the
larger space defined by the houses in
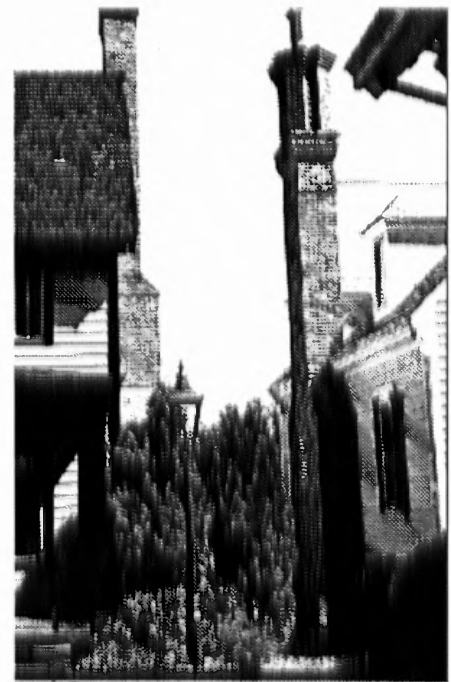*fig. 27a.*

Figure 28.
A special dynamic space is created
between these chimneys which is more
important than the singular objects
which created it. This relationship
appears to be produced by a "field of
force."

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create most memorable places. Jackle refers to this concept when he states, "Places should be designed to elicit identification whereby the individual inserts himself emotionally into a scene" (76). This is done first by a sense of scale. As defined, "Scale in architecture is... when building components relate harmoniously to the human form, building up, as it were, from the pedestrian in the street" (76). Buildings become understandable when the smaller parts relate to the human form and then build in size to the largest unit (fig. 30). If nothing relates to the human size a space becomes alien and overpowering.

Additionally, a place's character is determined by its attention to detail. The differences, similarities, and nuances create a delightful contrast and uniqueness. At the scale of the street, differences in street furnishings, pavement, and vegetation, provide this detail, as well as the residential structures (figs. 31-38).

Style is also included in space characterization. "Style, implying a characteristic arrangement of things, is readily recognized as following a well-established pattern" (85). Style refers both to the actual design of buildings and the visual patterning of the environment. Styles can be extremely varied and

Figure 29.
The space between these two buildings is quite apparent in the vertical dimension, and though less defined in the horizontal, is defined as being "three to four times the height of the tallest building" (111)
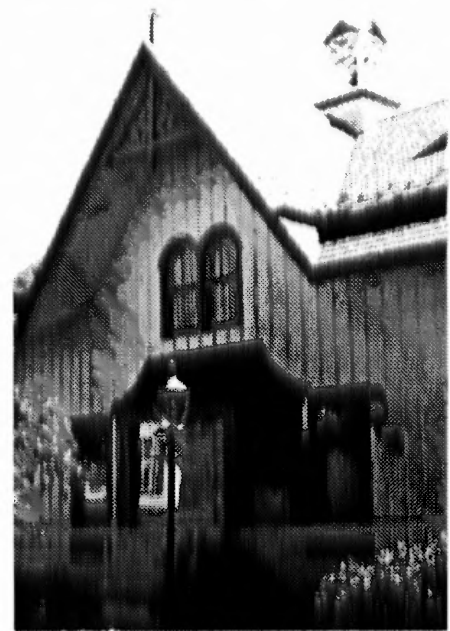

Figure 30.
The projecting window covered with the deep overhanging roof breaks the façade of the building into humanly scaled parts which allow the viewer to emotionally insert himself into a scene (76).

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Figures 31, 32.
At the scale of the street, the gable ends of the buildings help to develop a certain character by their attention to particular details. Similarities such as pitch or materials bind various structures together and uniqueness differentiates them.

Figures 33, 34.
Similarity of size and placement, their shape differentiated by the style of the building that they are a part of, helps to develop a character both within a particular building and from building to building.

Figures 35, 36.
Sometimes what surrounds a particular element becomes most important to its uniqueness. A different type or color of brick, a different type of border, a shutter, variously characterize and differentiate elements.
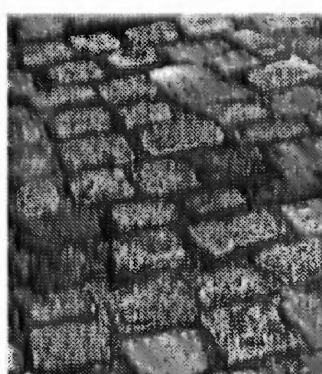
Figures 37, 38
Paving patterns and different types of pavers develop special character at the scale of the street.

complex, varied but ordered, or not ordered at all with little diversity. In a visually complex or romantic pattern there is much opportunity for visual

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Figure 39.
This early 20th century Arts and Crafts style house by M. H. Baillie-Scott demonstrates the variety and interest created by a complex romantic pattern.

Figure 40.
A little pond in the middle of a green carpet, partially enclosed by flowering trees, creates an exterior romantic place in its beauty, diversity, interest, and unstructured organization.

interest (86) (figs. 39-40). Here is found the surprise and the unexpected, with only a caution against too much unsolvable mystery which might cause confusion. The varied but ordered, or classical style, is satisfying as being a comprehensible pattern, and should be made most memorable by the addition of special visualizing elements (figs. 41-42). No recognizable order with little diversity, is both not interesting and not memorable (fig. 43).

Figure 41.
Satisfying because of its understandable order, interesting because of its fine attention to detail, a bit diverse in its unexpected differing wing main windows, this early 20th century brick house is an example of a more ordered or classical style.

Other elements that produce a special character of space are rhyme and rhythm (92). "Rhyme involves recurring correspondences that bind or tie" (92).

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Figure 42.
This garden illustrates a structured, regular, and classically arranged exterior space. In addition to the overall beauty of the vegetation, interest within the order comes from the different types and colors of rose bushes which create an ever changing picture.

Figure 43.
It is difficult for this house to command much attention because of its apparent lack of style. Interest and variety of detail are minimal in both the residence and its surrounding vegetation thus making this image non-memorable.

There is the continuation of cornice line relative to the roof, the level of window relative to ground," that tie buildings or street façades together (92). It can be manifested in a similarity of scale or through certain elements which though different are enough alike to suggest a bond (figs. 45-46). Adding rhythm introduces either a regular or irregular meter to the dynamic collection of elements. This in turn adds to a feeling of movement or rest within a place.

Figures 45, 46.
Dormers cut into the roof rhyme with those similarly pitched on an adjacent roof. However, vastly different in detail and differing in their numbers and spacing, an irregular rhythm of movement from dormer to dormer is also established.

Important to the concept of rhyme and rhythm is the notion of gap. A void or a gap interrupts rhythm

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unless it is designed into the pattern. It is an emptiness
which produces an "absence of relationship. A gap
must mean something in a sequence of visualization
or the experience will break down" (97) (fig. 47).

Figure 47.
A gap occurs in the rhythm of build-
ings in the town of Millburn, New
Jersey. A gap is a void, an emptiness
of relationship, which interrupts the
rhythm unless it is designed into the
pattern.

Contributing to a manifestation of rhyme and rhythm
are façades or the face of buildings. Here also
ordering or direction is noticed. A horizontal order-
ing of windows tends to reinforce a sense of move-
ment (fig. 48), while a vertical organization causes a
viewer to pause while the upward vision is explored
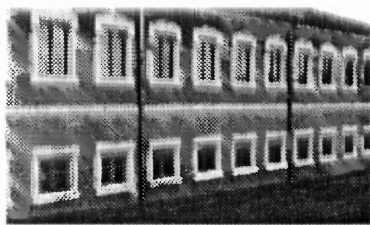(fig. 49). A lack of penetration in the façade

Figure 48.
The horizontal ordering of a building
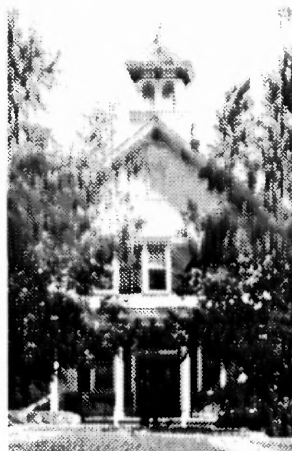*in Readington, New Jersey reinforces*
a sense of movement.

Figure 49.
The vertical ordering of the door and
windows in this house in Murry Hill,
New Jersey, causes a viewer to pause
while visually exploring the façade.

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encourages the viewer to move on (fig. 50). The texture of the façade affects visualization. A grainier surface draws more visual attention than a smooth one.

Jackle also makes the point that none of this vision would be possible, however, without the experience of light. "Without light there is no vision, and without vision there can be no visible space" (103). Light also conveys color. Color is important in determining moods; bright for gaiety, muted for quiet dignity. Color can tie disparate schemes together and greatly impact on developing a sense of rhythm, scale, weight, and proportion (fig. 51).

Characteristics of place are important in structuring 'special' environmental images. However, Jackle feels that another ingredient must be added to make visualizing most attractive. He feels that character-ized elements and spaces must work together to form a composition. For this to happen, the following elements of composition must be present in the individualized views: enframement, balance, focal center, and entrance/exit (fig. 52). Enframement detaches a visual array from its environmental con-text. Balance is achieved by poising elements and their qualities against each other so that they are

Figure 50.
A lack of detail and penetration in the façade of this house encourages vision to move on.

Figure 51.
The continuous color of the barn door and the siding create a unified façade, while the different colors of the trim around the window and the upper vent make these elements more visible.

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equalized. "The process of stabilization imposes on all things seen and planned a vertical 'axis' with a horizontal secondary referent which together establish the structural factors that measure balance" (128). The focal point is that part of the visual display which attracts the eye like a magnet. This is also "the pivot point around which various contrasting components group themselves, pulling and warring, in their claim for attention" (132). Additionally, a good visually attractive composition will contain elements which lead the eye into a scene and then out of it. "In a successful composition, the eye enters where expected, moves readily to the focal center, dwells there assessing detail, and then exits" (133) (fig. 52).

This is the visualization process as explored through concepts presented by John Jackle and reinforced by Gordon Cullen. This theory helps us to understand some of the visual ingredients which combine in various ways to make streetscape.

Summary

Streetscape is discovered through the act of serial vision. While engaged in this process, the eye is particularly attracted by: differences in surface and

edge, size, color, shape, texture, a wavy versus a linear configuration, and feelings of enclosure. The components of this visual process are: the viewer, the view, distance, horizons, vertical walls, and focal points. These components variously combine to create particular types of enframed views or vistas. These types are: deflected, screened, horizontal, expanding, and peep-hole. The spaces discoverable

Figure 52.
In this view, elements of structure and space work together to form a composition. The view is enframed by the trees which detach the visual array from its environmental context. A balance in the view is achieved by the two adjacent houses complimenting each other. The eye is attracted by the light color and symmetry of the first house as a focal point; our eye is lead into, up to the focal point, and then out of the view by the path.

through the view or the vista experiences are describable as particular places to the degree that they are: fully enclosed, partly enclosed, or uncontained. A special type of place, with a minimal spatial definition, is a 'point of rest.' To create character of place, that is to give special meaning to various types of places, it is important to add the characteristics of: scale, detail, style, rhyme and rhythm, face, light, and color. Additionally, views become most attractive when the characterized elements and spaces work

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together to form a visual composition. The components are: enframement, balance, focal point, and entrance and exit.

Aesthetic Theory

My theory of aesthetic streetscape is built on facets of perceptual theory. This theory explains how in a visual experience, our eyes and consequently our minds are attracted by vistas, variously characterized spaces and physical elements. The theory also points out that elements, individually and collectively in composition, have features which make them particularly attractive. However, streetscape is not just the experience of these features, it is an "aesthetic" moment. To be successful, these individualizing features both singularly and in combination must possess the added quality of beauty. In the nineteenth century, Andrew Jackson Downing (1815-1822), a landscape architect, looked at the "picturesque" as it pertains to residences. In his book, The Architecture of Country Houses, Downing explores aesthetic thought through a discussion of the compound nature of architecture. He sees architecture as both useful and beautiful. One part is "based wholly on the physical wants of a man," the other "a worship, by the

Figure 53.
A "shingle style" home illustrates Downing's concept of proportion, or the harmonious relation of the individual parts to the overall mass of the structure. This attribute is necessary in architecture if a house is to have absolute beauty.

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heart, of a higher perfection manifested in material forms" (9). He finds the beautiful aspects of architecture most difficult to define. He divides them into two kinds: absolute and relative (10). "Absolute beauty lies in the expression, in material forms, of those ideas of perfection which are universal in their application." He finds these to be: "proportion, symmetry, variety, harmony, and unity." Proportion is defined as "the relation of individual parts to the whole" (10) (fig. 53). Proportion is important to the overall massing of the building as well as the building's details. Symmetry he defines as: "that balance of opposite parts necessary to form an agreeable whole" (12). Symmetry develops from a "central part, which shall connect the two other parts into a whole" (13) (fig. 54).

Variety is also important. "It adds to the interest of the whole by the diversity which it affords in the arrangement, sizes, or forms of the different parts" (16) (fig. 55). Harmony he defines as, an agreement made in the midst of the variety of forms, sounds, or colors, by some one feeling which pervades the whole and brings all the varied parts into an agreeable relation with each other" (17) (fig. 56). Additionally if a residence is of a modest size than beauty is found in simplicity and unity (fig. 57). "If the building is

Figure 54.
This home, designed by Albro and Lindeberg, illustrates the beauty and interest which develop when symmetry, a balance of opposite parts which form an agreeable whole, is present in a design.
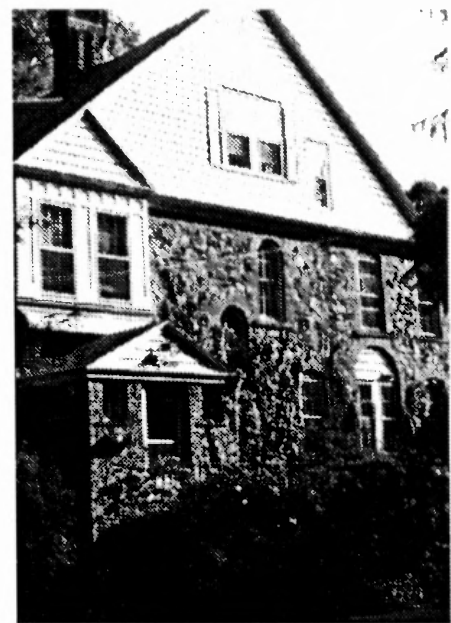

Figure 55.
Variety, a diversity in arrangement, sizes, or forms, when part of an overall style produces much absolute beauty.

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Figure 56.
The singular overall feeling which
pervades this design brings all the
varied parts into an agreeable relation
with each other (17).

well proportioned, if there is a pleasing symmetry in
its outward form, and (should it be large) if it displays
variety, harmony, and unity, we feel that it possesses
much absolute beauty, the beauty of a fine form" (23).

Figure 57.
When a residence is of modest size,
beauty is found in simplicity and unity.

In addition to the beauty of form, Downing suggests
that domestic architecture should also possess relative
beauty. This is what he calls, "beauty of expression."
In dwellings, it is "the manifestation of man's social
and moral feelings in the dwellings which he inhabits"
(20). Domestic architecture should have "various
marked features indicating intelligent and cultivated
life in its inhabitants" (23). Beauty of expression is

Figure 58.
The chimneys, porch, and windowed
stairwell of this stone and clapboard
dwelling are manifestations of places
for individual, humanistic responses.
They convey within a dwelling what
Downing refers to as "beauty of
expression."

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a feeling conveyed by a dwelling that is not merely a useful structure, but a place for individual, humanistic responses. Verandas and chimneys, parlors and libraries suggest places for this type of endeavor (fig. 58).

The production of beauty in a man-made structure is a conscious effort; in the natural environment, it is innately present. In his book, The Visual and Spatial Structure of Landscapes, Tadahito Higuchi speaks about nature: "that there will come a time when we will cherish the beauties of nature and consider them a part of ourselves" (191). He also suggests the manner in which man can effectively touch the natural environment. "We must make a conscious effort to discover the proper relationship between ourselves and nature. Designers must develop the ability to feel and visualize the sorts of images that the special characteristics of a setting are able to call forth. They must then work out designs that are not only suitable

Figure 59.
This beautiful stone residence has been gently introduced into the natural environment at the top of the knoll, commanding a view through the trees.

to these images but cause the images to grow and be enhanced" (191). Downing also extolled this view of the gentle integration of built structures into the natural environment (fig. 59).

In addition, he felt that designers, in using natural materials for dwellings, had to be truthful to their natural state (fig. 60). "Stone should be used in such a way as to bring out its natural beauty, and wood should be treated as wood, and the style of a building should be related to its site" (Millburn 8). Aesthetic theory adds another dimension to perceptual thought. It provides the theory upon which artful experiences can be built, suggesting a manner in which interesting, stimulating environments can be made beautiful. Together these ideas help to explain 'why' certain elements singularity and in combination produce streetscape. Additionally, however, it is important to understand 'how' to produce this beautiful environment. For this study, actual streetscape, practical examples are most useful, as they visually illustrate the detail, complexity and diversity to be found in reality.

As already mentioned above, Downing's ideas were most influential to the nineteenth century thoughts on architecture, nature, and concomitant development.
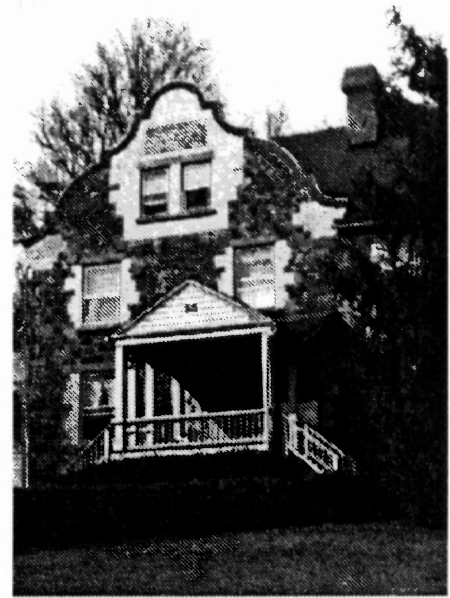

Figure 60.
"Stone should be used in such a way as to bring out its natural beauty and wood should be treated as wood and the style of a building should be related to its site," Downing, (Millburn 8).

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In fact, his writing achieved almost instant popularity. His book, Treatise on the Theory and Practice of Landscape Gardening Adapted to North America, which appeared in 1841, "could be found on almost every parlor table the country round" (Millburn 8). Though influential to many, one man in particular greatly affected his thought, Stuart Hartshorn, a roller-shade manufacturer from New York City. In 1871, Hartshorn moved his family to the town of Springfield, New Jersey where he began to plan an "ideal suburban village" based on Downing's romantic notions. The site he chose was a unique, magnificent part of the recently formed Millburn Township. As developed, much of this "ideal" community is still intact and can as such be studied for concrete examples of streetscape.

The History of Short Hills

Millburn Township began its development as a collection of farmsteads, grist and saw mills scattered about the countryside. In 1793 these scattered areas were included in the newly formed Springfield Township. Then in 1857, the area which is the present day Millburn, Short Hills, became a separate township (fig. 61).
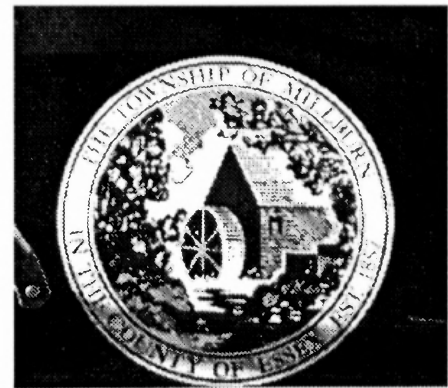

Figure 61.
In 1857, the area which is the present day Millburn, Short Hills, became a separate township.

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Millburn is unique for its specific topography. Formed by deposits of sand, silt, clay, and boulders left by the last glacier in North America, the area is composed of a series of 'little hills.' Streams run down through these hills, and the original inhabitants, the Indians, created trails around them. The vegetation is lush. The early settlers wrote, "the trees are very tall and straight, they generally are oak, beech, walnut, chestnuts, and acorns lie thick upon the ground" (Beginnings 7).

In 1874, Stuart Hartshorn moved his family to this unique and idealistic landscape. Having purchased more than 1500 acres of the "little hills" area, he began to develop his "ideal community" of Short Hills. Going against the norm of the times, which was to divide the land into building lots, he allocated pieces of land based on individual needs and tastes. The parcels varied from one to five acres and were defined by the land contours (Millburn 4) (fig. 62).

Figure 62.
The "ideal community" of Short Hills was divided into building lots based on individual needs and tastes. The individual parcels varied from one to five acres and were defined by the land contours (Millburn 4).

To control the continual growth of his land as a development of homes in commune with nature, he restricted the sale of homesites. The prospective owners had to impress Hartshorn with their love of nature, their design intentions, and their respect for their neighbors' interests, or they were not allowed to build in the park. Hartshorn also built a number of homes which were available for rent to those who wished to spend quiet time in the country in commune with nature. He hired many different architects for the design and construction of these houses, so that there were no two houses that looked alike (Millburn 2). "Although reflecting the stylistic influences... each house was designed to respond completely to its particular site. Each is totally different from any other, yet it compliments and works with its neighbor to provide an unparalleled architectural composition. Particularly evident... are the picturesque vistas Hartshorn created by placing almost every house on a knoll to take greatest advantage" of the view (Millburn 10) (fig. 63).

Figure 63.
"Particularly evident...are the pictur-esque vistas Hartshorn created by placing almost every house on a knoll to take greatest advantage" of the view (Millburn 10).

Roads were kept to a minimal and when constructed were carefully laid down to avoid all trees of a substantial size as well as not interrupting any streams. The roads were hard surfaced with cobblestone drainage gutters at their edges (fig. 64). Additionally, when the houses and roads were being built, he carefully designed and had built an underground sewer, so as not to have to disturb the natural terrain again at a later date. Hartshorn preserved the natural beauty of his site at all costs.

Figure 64.
Short Hills' roads were hard surfaced with cobblestone drainage gutters at their edges.

As a true romantic, Hartshorn encouraged the use of local materials. Oak, pine, cedar and chestnut as the native timber were used in the construction. Trap rock came from the Hartshorn Springfield quarry (fig. 65), and brick was made from a local kiln. From this kiln there was available both "a superior hard brick, suitable for all building purposes, but also a pressed brick for the finer grades of work" (Millburn 11). From the History of Essex County, of which Millburn, Short Hills is a part, comes the following excerpt, "as the solution of the long baffling problem of how to make beautiful and healthful suburban homes, Mr. hartshorn has made such homes, with all the happiness and comfort which they imply... And it may be added that its result is at least as fair to the
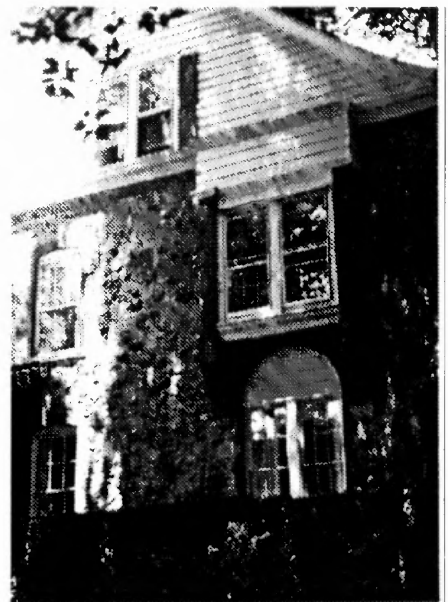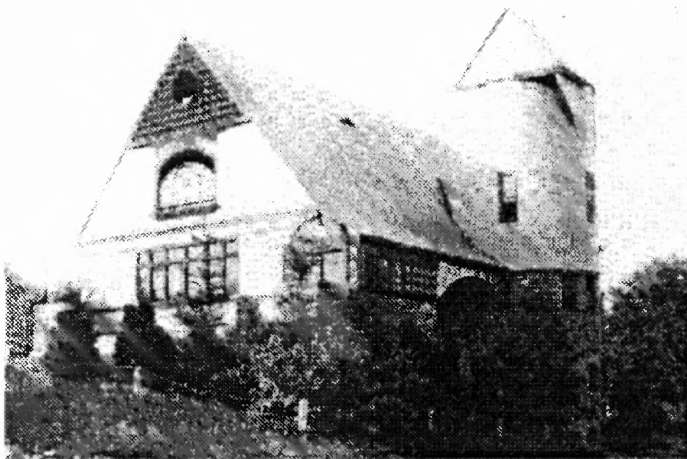

Figure 65.
Trap rock from the Hartshorn Springfield quarry was used in the construction of the new residences.

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aesthetic eye as to the examination of the utilitarian"
(Millburn 3) (fig. 66).

In additional to individual houses, Hartshorn had a
view to community development based on aesthetics.
Because of his desire to maintain his community as
strictly residential he had to develop access to a
transportation system to take the residents to their
places of work. In anticipation of the new rail line,
he built a railroad station retaining ownership to the
land adjacent to the station so that no one could build
on it and thus mar the view of his community from the
train (fig. 68).

Figure 66.
The entrance to an original Hartshorn
house, a beautiful and healthful
suburban home, which was "at least as
fair to the aesthetic eye as to the
examination of the utilitarian"
(Millburn 3).

Figure 67.
Hartshorn commissioned the firm of
McKim, Mead, and White to build a
music hall which served as both a
visual and a community center for his
residential development.

Also, he felt that his town would need a visual as well
as a social focus, so he hired the firm of McKim,
Mead, and White to design a community center. The
result was the Music Hall which opened in 1880 (fig.

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67). There was now a visual entrance to Hartshorn's community. This was Short Hills at the beginning of the century.

Time has been good to Hartshorn's park. As mentioned, most of the original park is still intact (fig. 68). However, with the continued subdivision of properties, the character of the town is beginning to change. Recently, the change has been so noticeable that to prevent any further loss of the original sites and structures, an Historical Preservation Society has been formed. Its goal has been to catalogue the historical elements of the original park, and to establish guidelines for their continued preservation. The establishment of this society will hopefully ensure the continuance of Hartshorn's park into the next century.

Figure 68.
A view of an original Short Hills' home from the railroad station as it still appears today.

Lessons from Hartshorn's Park

The physical elements which compose Short Hill's streetscapes are found in many suburban developments. There are man-made features of roads, and houses, driveways, and garages, fences, signs, lights, street elements, flags, steps, walls, trellises, terraces, walks parking areas, and street gutters. There are
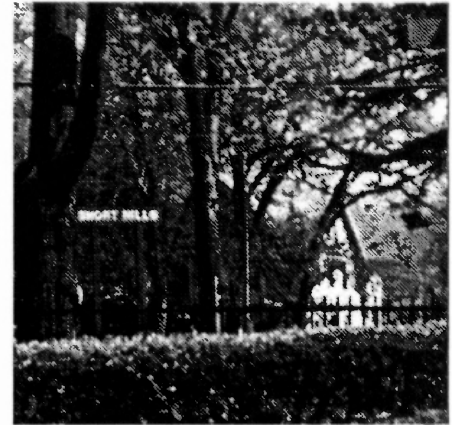
natural features of trees and bushes, flowers, grass, stones, and a rolling terrain. As elements these features are not so unusual, being part of many suburban streetscapes. The difference is that in Short Hills, these elements both singularly and in composition possess what Downing referred to as "absolute beauty," discoverable to the viewer through a series of special visual experiences.

Short Hill's streetscape is composed of numerous types of vistas: terminated, deflected, screened, horizontal, expanding, and peephole. As mentioned in The History of Short Hills sectioon, the roads were laid out in a manner determined by following the topography and avoiding trees and streams. The result of this method is that whenever the road twists to accommodate such natural elements, a vista is created. As Jakle describes, this use of various vistas creates a visually attractive environment. It is attractive in both the experience of the changing types of vistas as well as in the different 'views' (figs. 69, 70).
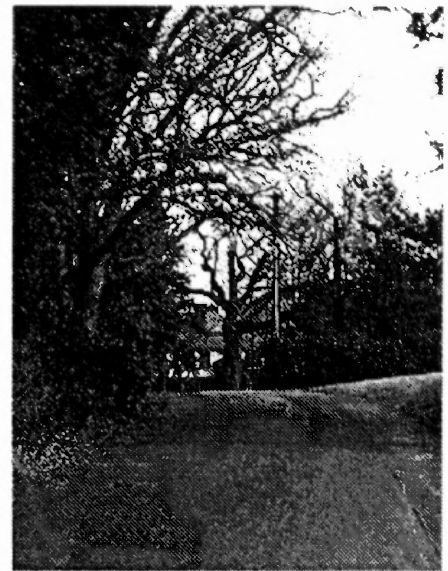
Figures 69, 70.
Short Hills' streetscape is composed of various types of vistas or shaped views which Jackle states creates much visual interest. In figure 69, the view along the street, following the natural terrain, is first terminated by an open grassy space as defined by the natural vegetation, and figure 70 is deflected and truncated to partially reveal a distant residence.

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These vistas are primarily created by the organic configurations of the roads. The advantage of this layout is that there is a minimal disturbance of the natural landscape. In his book, The Country Garden, John Brooks speaks about this appeal: "… it is the natural landscape itself that entices most people to the countryside and encourages them to make their home there,…" (18). So, integrating natural features into suburban development has proved to be a most appealing attribute.

The natural, organic road movement also offers another advantage, a way of visually integrating and relating various elements and focal points. As the road moves over the natural topography, different views of both natural and man-made physical elements come into focus: first, a natural element (fig. 71), then a house (fig. 72), then another arrangement

Figure 71.
As the road moves over the natural topography, the focus is first on a natural element adjacent to the street; beyond, a house begins to come into view.

Figure 72.
Moving along the organic road system, vision is attracted by a house set in the midst of its contiguous spatial and vegetation arrangements.

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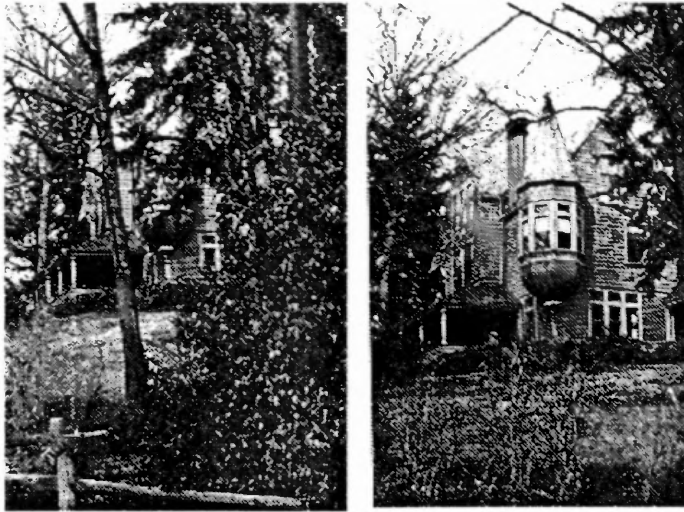
Figures 73, 74.
Beyond, another arrangement of
natural vegetation and then another
house appears to produce a specific
rhythm and relationship of elements.

of various types of vegetation (fig. 73), then another house (fig. 74), etc. Moving through the environment in this fashion produces a specific rhythm and relationship of elements which focuses on both natural and man-made features in equal relationships.

Natural elements singularly possess an innate sense of beauty (fig. 75). However, in Short Hills, there is also an overall beauty which develops from these elements being consistently present from residence to residence in either unique or similar types of garden arrangements (fig. 76). This results in a pleasing, continuous rhythm of related types of vegetation, plus a unified, harmonic sense to the whole (fig. 77). It produces, as Downing said, much absolute beauty. This perception of a beautiful environment is reinforced by the view of the individual houses.

Figure 75.
*This native rhododendron possesses an*
innate sense of beauty.

Figure 76.
Native rhododendron are seen
continually throughout the park in
arrangements with other types of
rhododendron and with other types of
vegetation. They are found as garden
accents, hedge arrangements, and in
random fashion throughout the
properties.

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As provocative pieces of architecture, the original houses are as beautiful and as visually important to the park as any natural elements. Individual facades relate proportionally in width and height, in overall proportion of windows and doors, and with individual panes of glass The facades also possess pleasing rhythms of solid to void. And as Downing stressed in his thoughts on the development of relative beauty, the dwellings are expressive of activities for humanistic thought. This is noted by great attention to the design of chimneys, porches and entrance areas, and most specifically in spaces designed for humanistic pursuits (fig. 78, 79).

Though uniquely detailed, the houses are also relatively respectful and reflective of each other. There is a relationship of materials, of texture, of attention to details, of interesting multi-sidedness, of roofing materials and pitches, of exterior functional elements, and of volumetric proportions (fig. 80, 81).

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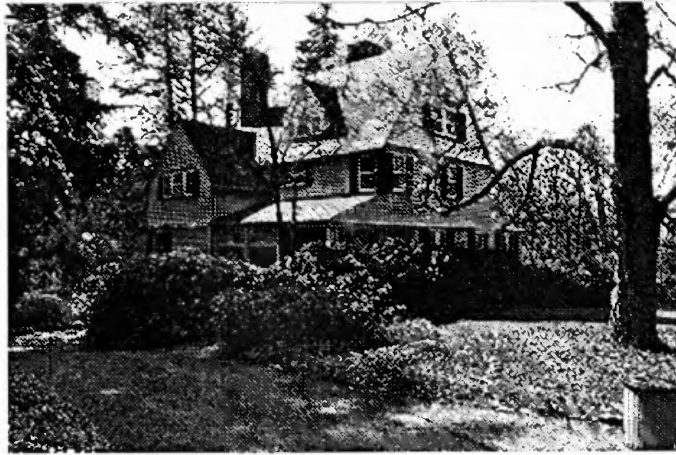
Figures 78, 79.
The original homes of Short Hills are
expressive of what Downing referred
to as absolute beauty, in their overall
proportions, in the proportions within
the façades, and their solid to void
rhythms. They also possess relative
beauty, most specifically designating
places for humanistic pursuits.

These unifying elements are particularly important
because of the visual manner in which the dwellings
are revealed. With the roads' movement across the
natural terrain, and the individual siting of the

Figures 80, 81.
Though uniquely detailed, the houses
are relatively respectful and reflective
of each other as are these two quite
different houses. Stone is present on
both houses' lower stories while the
lighter weight wood is used for the
upper stories. Windows are uniquely
placed to designate a particular
function within, while a similar pitch
can be found in the main roofs.

dwellings, parts of different houses are often viewed at once. Thus is produced, through the integrative nature of the landscape, an harmonic, unified, composition.

There is also another structure which contributes to this unified visual experience. It is the carriage house. This building, as originally constructed, housed the horses and carriages of the main house; it now houses the cars of the main house. As such, it plays an important role in the visual display of the park.
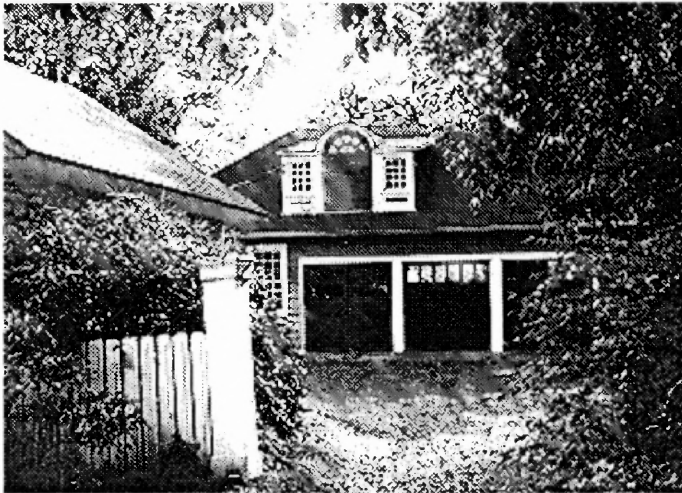

Figure 82.
The carriage house is a detached, free standing structure located at some distance from the main dwelling. Being smaller, it provides an intermediary scale to the main structure.

The carriage houses are detached, free standing elements located at various distances from the main dwellings. There are four main advantages to this. First, the carriage house, being smaller than the main house, provides an intermediary scale to the main dwelling (fig. 82). Providing this humanistic volume

allows the viewer to more easily measure and comprehend the larger volume. Secondly, the carriage house also reflects elements of the main house (figs. 83, 83a). This repetition of the main dwelling's architectural elements prevents individual elements from being so completely isolated in their own individualized settings. Thirdly, the carriage house provides a means of integrating the main residence into the natural environment. Of a smaller size, the carriage house more easily becomes part of the landscape and prevents the main dwelling from appearing so intrusive (fig. 84). Lastly, the carriage house is most important because its position, vis a vis the main house, produces a special defined space. Often

Figure 84, 84a.
The carriage house's roof reflects the pitch and slope of the main house's, while the dormer's central window repeats the curve of the main house's entrance window.

Figure 84.
The carriage house, being of a smaller size, more easily becomes part of the landscape and prevents the main dwelling from appearing so intrusive.

partially defined by the main house, this space provides a place for the family to be together outdoors in a semi-private 'living place.' These 'transitional spaces' linking public and private worlds are one of the unique features of the Short Hills streetscape experience.

Jackle discusses the fact that we relate most positively to varying types of spaces. This is what happens to the carriage house space. From the street, the view is into the space in front of the structure (fig. 85). This space is defined by the edge of the carriage house, the bushes, grass, or some type of wall. Even without being physically in this space, our minds relate to similar places. If the space is not wholly visible, we can still mentally define the area and 'get' into it. This controlled view is important because it develops both an immediately pleasurable visual experience as well as a memorably pleasurable one. It suggests privacy, entry, "home court."

The concept of 'defined space' is important in the park's overall development. The streetscape experience is a continuous discovery of these spatial definitions with multiple views through the trees, or over hedges, or along roads onto grassy areas which are variously defined and contoured to either contain the eye in a particular space or lead it along to another. When involved in this 'place' discovering experience, often the reward is finding special elements: a little storage house, or a beautiful bench, or a special little resting place (figs. 86, 87). Compared to a "singular design system" (i.e. the roadway), the visual world provides more complex variations.

Figure 85.
From the street, there is a view into the carriage house space. Even without being physically in this space, our minds relate to past such similar places. Though this space is not wholly visible, we can mentally define the area and 'get' into it.
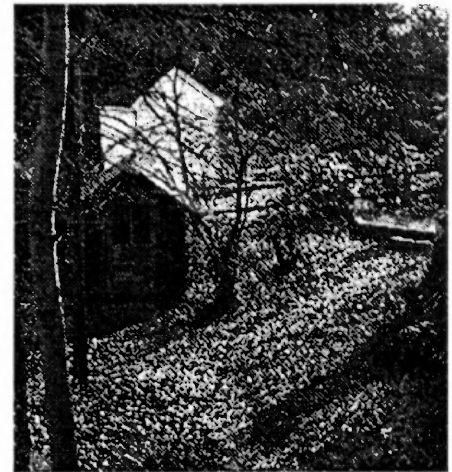

Figure 86
Involved in special place discovering, the reward is often a unique element, like this little storage house.
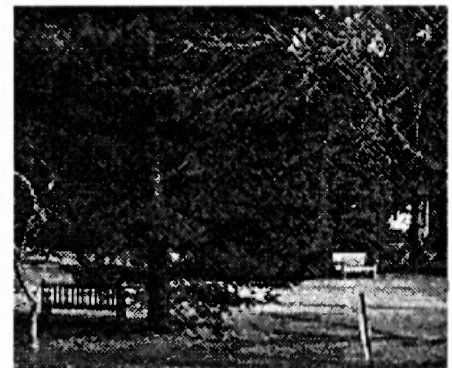

Figure 87.
Under the pines, benches create resting places for moments to pause and enjoy the beautiful outdoors.

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Impacting on this spatial definition is the visual experience of the actual street. Minimal in dimension, a car must often pull off to the shoulder to allow another to pass. The edges of the streets are often small flat stones which in turn disappear into the natural or cultivated landscape. Occasionally, streets are marked along their length by larger stones. Trees 'march' along the streets' lengths, but their spacing and set-backs are inconsistent. There is also no discernible definition of bounded ownership. It is impossible to determine where one property begins or ends. Instead, there is the feeling of being part of a unified, composed landscape. The street is not an isolated defined space. As designed, it is part of the other spaces, both physically and visually; it functions to involve the viewer in its contiguous environment (fig. 88).

Figure 88.
The streets are designed to have no impact at all. Trees march along their lengths, but their spacings and setbacks are most inconsistent. There is everywhere the feeling of being part of a unified, composed landscape.

This minimalist designation of street surface continues in the drives to the main and the carriage houses. Just wide enough for a single car, they are laid unobtrusively into the natural landscape. Often as opposed to an asphalt surface, the drives are composed of little stones which are kept in place with some sort of edging material. As with the main streets, the driveways do not become a dominant visual element. Instead, they become the background for a vista or a space where the elements of natural or man-made structures take precedence (fig. 89).
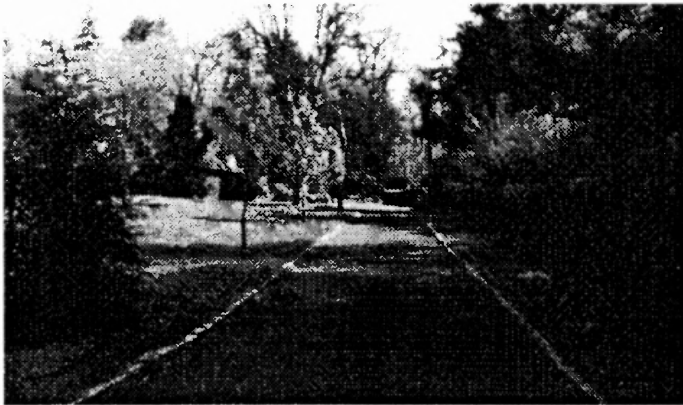
Figure 89.
A driveway does not become a dominant visual element. Here it is part of a terminated vista to the main house, helping to create but not visually dominate the space between the hedge and the maple trees.

Another important aspect of the Short Hills environment is its level of maintenance. While some places are left undisturbed to grow naturally, and other areas are meticulously manicured, the overall feeling is of tremendous caring for the environment. It feels as if nature has been disturbed only when necessary; when disturbed, then most carefully and consistently cultivated to maintain the existing environment.

Hartshorn's park is looked at as a landmark concept because it produced beautiful 'streetscapes.' Understanding this produc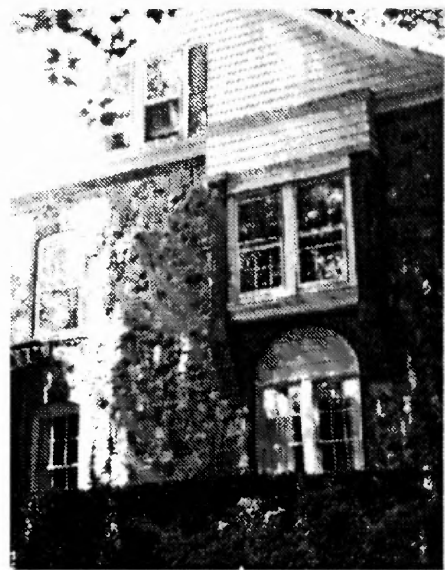tive force allows for further individualized, similar conclusions. The park's development is based on the belief that both nature and man can and should equally contribute to the production of a beautiful environment (figs. 90a, b, c). The park's theory also focuses on the importance of aesthetics in individually designed residences as well as an aesthetic relationship of one structure to another. In actual practice, these concepts are reinforced by an overall use of similar types of vegetation, with individual expressions near the singular residences. This vegetation in conjunction with the residences successfully develops special places to be, which are discoverable primarily through some type of vista experience. It is this emphasis on the visual rather than purely functional concerns which produces the beautiful Short Hills Park streetscape.
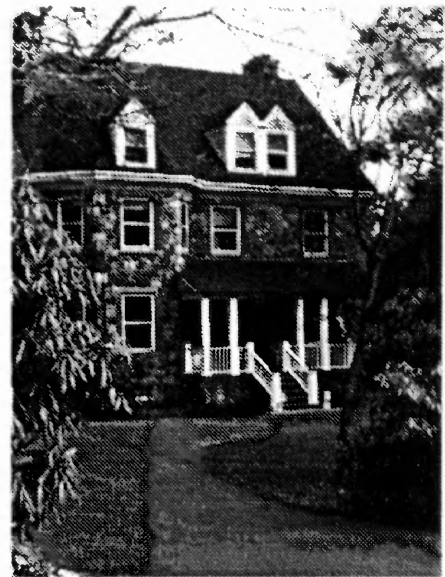

Figure 90a, b, c.
The park's development is based on the belief that both nature and man can equally contribute to the production of a beautiful environment.

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Country Landscape Theory

Hartshorn's park is important to streetscape design because it practically demonstrates perceptual and aesthetic theory, which I feel must be focused on to produce any successful suburban streetscape. However, in a rural environment, there are additional factors which must be considered in streetscape design; these are the special patterns and rural elements of the countryside. To begin, it is helpful to first look at the country's visual elements. These are primarily untouched nature and the farmstead.

Defined by John Stilgoe in Common Landscape of America, 1580 to 1845, the farmstead is comprised of, "the house, the barn, outbuildings, and yard," a cluster of structures and spaces (149) (fig. 91). There
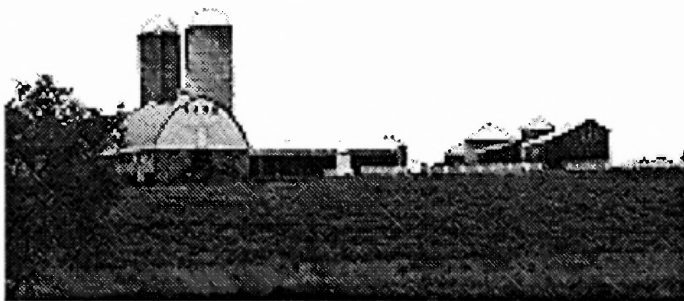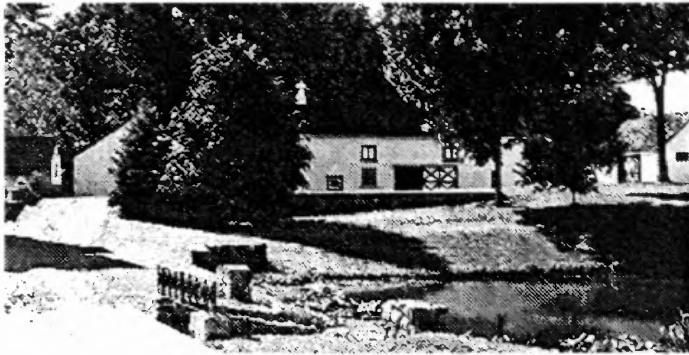

Figure 91.
A farmstead in Neshanic, New Jersey is comprised of "the house, barn, outbuildings, and yard," a cluster of structures and spaces (149). There were no definitive rules as to the actual production of this arrangement, suffice it to say that it developed from tradition and certain climatic and site related features.
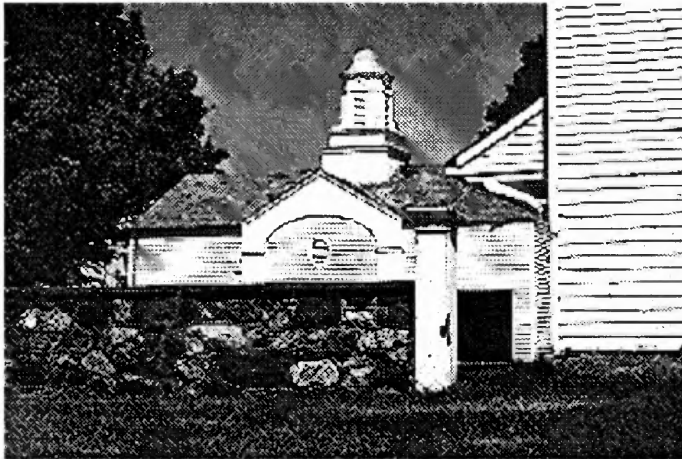
were no definitive rules to the actual production of this arrangement, suffice it to say, that it developed from tradition and certain specific climatic, func-

tional, and site related features (149). Regardless of its generative principals, there has grown a grouping

Figure 92.
In a farmstead, an enclave of struc-
tures produces very special places to
be. In this small farm in Far Hills,
New Jersey, a special place is created
between a little storage barn on the
left and the perpendicularly sited hay
storage barn next to it. Additionally, a
larger special place is created in front
of the main barn, which is defined by
the smaller storage barns on the left
and the trees and stone wall in the
front.

of buildings which, by their specific layouts, define various types of spaces. The result is an enclave of structures which produces very 'special' places to be (fig. 92).

In addition, this juxtaposition of structures produces a three dimensional, many volumed mass. Though
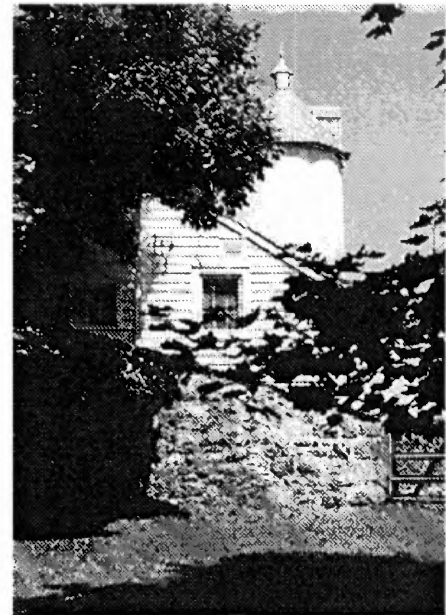
Figures 93, 94.
In a farm in Oldwich, New Jersey,
structures are individualized by their
specific functions, but similarities in
details, such as roof pitch and compo-
sition, siding, natural elements, such
as the field stone, and the volumes
themselves, hold the group together in
a unified composition.

each structure is individualized (because of functional differences), relationships are established through the reflection of similar elements, such as siding and roof pitches (figs. 93, 94). These relative elements, plus

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the volumes of the structures themselves, hold the group together in a unified composition (see fig. 91, farmstead).

In a country streetscape, there are actually two streets. There is the main road which follows the natural terrain through the countryside and then there is the drive to the individual farmstead. In many ways, this is a continuous experience. The main roads are usually just wide enough for two cars to pass easily; the drive to the farmstead is usually just wide enough for one. The real difference is that the main road realizes the experience of the sequence of farmstead and open space, while the individual drive focuses on the farmstead as goal surrounded by various types of defined spaces.

Both of these experiences are important to the concept of country streetscape. The first part of the concept, the 'view from the main road,' focuses on the farmstead as a panoramic element (fig. 95). Physi-
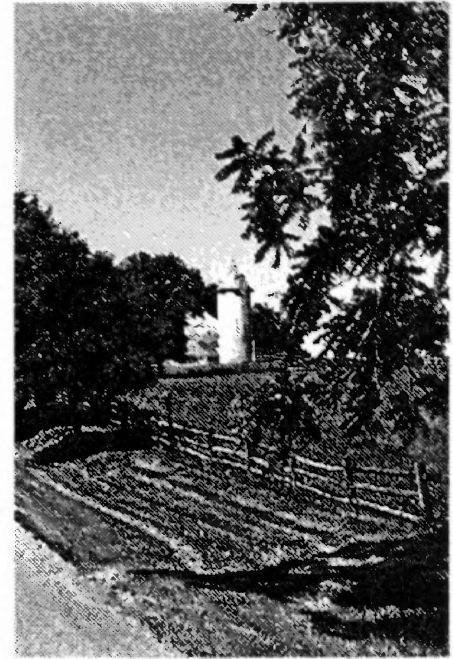

Figure 95.
In country streetscape, a farmstead in Tewksbury, New Jersey becomes a panoramic element in the 'view from the main road'. Its volume works in conjunction with the natural elements to form a balanced composition.

cally visible as a collection of volumes and spaces, it becomes an important landscape feature. As such, it balances the other physical elements of the natural landscape in a visual composition.

The 'view from the main drive,' is the second part of the streetscape experience. This experience is the

Figures 96, 97.
In the 'view from the main drive,' the groupings of natural elements of vegetation, the openings for fields of pasture or crops, the farmstead volumes, alternately come into and slip out of view.

realization of the contiguous open spaces along the drive, the natural physical elements, and the volumes of the farmstead as their images alternately come into and slip out of view (figs. 96, 97). Particularly attractive about this experience is the presentation of various elements as focal points: a little storage shed terminating the view of other storage areas (fig. 98), a manicured grass area surrounded by hedges (fig. 99), an interesting top to a storage silo juxtaposed with a barn cupola (figs. 100, 101). As opposed to "traditional suburbia", this experience presents a

Figure 98.
In a close-up view of a farmstead, a vista terminates with a little storage shed which stands isolated from the other structures.

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greater variety of scale, spatial size, longer vistas, and more man-made structures in complex compositions.

Of particular note about the farmstead close-up is the view of its utilitarian nature. There is a functional design to this cluster: outbuildings of a specific size for certain types of storage, barns designed to house different types of animals, and a house reflective of the expansive needs of a family (McAlester 91). However, the essence of a farmstead is not its functional nature. Most important is its development as a place for visual and social communication. The juxtaposition of the buildings' volumes and their similar details (figs. 99, 100, 101) produces a visual interaction, while the exterior spaces thus created allow for and encourage social behavior. The social feeling is continued by a house design which incorporates many entrances and porches which provide places to get away from the hot sun and wind and to interact with others (fig. 102).
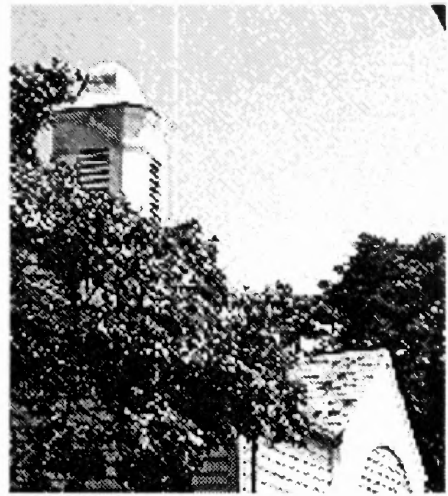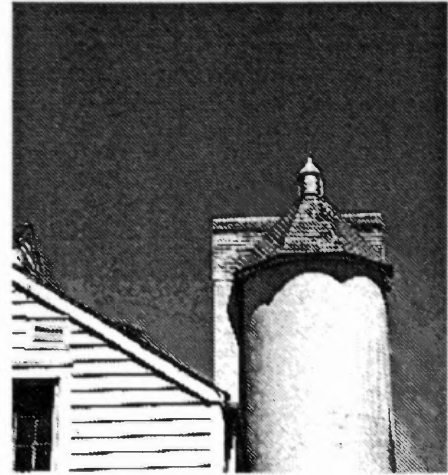
Figures 99, 100, 101.
Various elements both singularly and in composition come into view in the visual experience of the farmstead. Vision can terminate in a grassy area defined by rows of hedges, or with a storage silo or barn cupola.

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This is the feeling of the country streetscape. In this experience, awareness of the actual street is minimized or non-existent. Instead, it is the visual panorama of the countryside that dominates: the composition of the undeveloped natural setting, the cultivated lands, and the farmsteads. As the farmstead "driveway" continues the properties of streetscape, vision is alternately focused between the farm buildings as focal points, the farmstead as a composition of structures and special places, and the arrangement of natural elements and spaces (fig. 103).
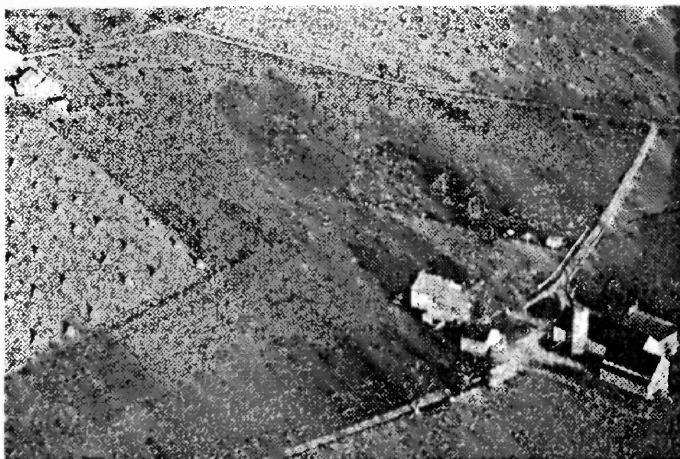

Figure 103.
In country streetscape, the visual
panorama of the countryside domi-
nates: the composition of the undevel-
oped natural setting, the cultivated
lands, and the farmsteads.

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A typical suburban development is not generated by either the farmstead's compositional pattern nor by the panorama of the countryside. Instead its concern is to maximize land use through the functional production of individualized housing. This production is defined by absolute size, prescribed distances between elements, uniformity of organization, and virtually no visual description. As individual structures surrounded by undefined land, a typical development introduces a pattern quite foreign to the existing rural structure (fig. 104).

Suburbia does not develop massing or architectural features, and the 'special places,' as described by the farmstead, are no longer discoverable. There is no collective composition of building elements, little variety of scale, panoramic scenes are of fixed dimension, uniform, and repetitively identical. Panoramic views, so integral to the rural streetscape, are also not incorporated into the traditional suburban experience (fig. 104a). Instead, a street layout which focuses on a paved access road is produced. Easy access for large service vehicles, maintaining gentle gradients, and the anticipation of increased need for vehicular traffic burgeons streets into roadways. Often wider than the 'main' country road which this
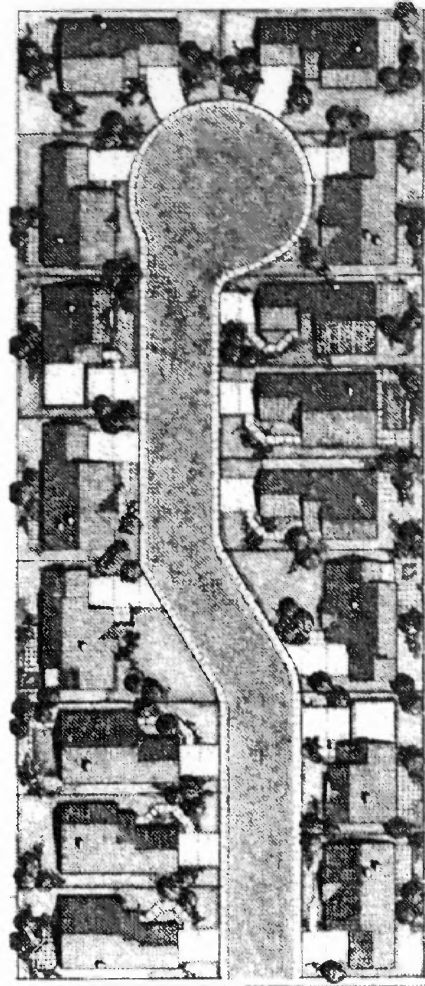

Figure 104.
A typical suburban development's concern is to maximize land use through the functional production of individuaized housing.

Figure 104a.
Suburbia does not develop a collective composition of building elements; there is little variety of scale; and panoramic scenes are of a fixed dimension, uniform and repetitively identical.

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street accesses, the new suburban road continues as a wide drive up to the focal point of the garage door. The result of this pattern is a streetscape which focuses on drives, driveways and garage doors as the dominant elements in the landscape. Unfortunately for suburbia, from a visual point of view, these features are usually the most unaesthetic elements of the streetscape, being designed as functional elements rather than as foci in a streetscape experience (figs. 105, 105a).

Figure 105.
A drive in a farmstead composition focuses on a distant panoramic view of the countryside.

Figure 105a.
A suburban drive focuses on paved access roads and wide drives up to the garage doors. From a visual point of view, these features are usually the most unaesthetic elements of the streetscape.

Suburban Country Theory

Existing rural patterns are built on a combination of aesthetic and functional concerns as well as a spatial and compositional configuration. The typical suburban pattern is based on perceived functional needs and the maintenance of individual choice. There is little regard for the aesthetics of the developing neighborhoods as total composition, nor an interest in integrating any existing landscaping patterns into new communities. However, this design should be a critical issue, for suburban development could one day be our total environmental system. As 'design' has become specialized (architects, engineers, planners, landscape architects, surveyors, civil engineers, and
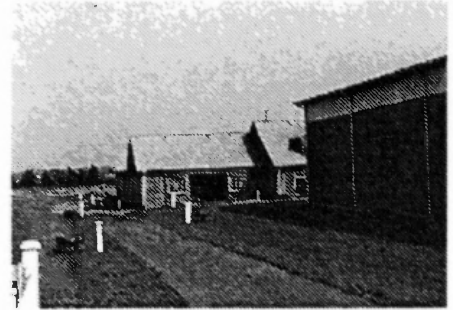
road engineers all provide individualized data), clearly the one major gap is in the design continuum between physical scales and disciplines, both public and private. Governmental agencies avoid visual control due to the legal immeasurability of aesthetics. Land use and zoning codes focus on the measurable and the functional. The process of land use begins with the definition of: use, density, lot size, minimal dimension, roadway configuration with some attention to slopes to minimize erosion, and lot coverage to minimize rain runoff and wetland maintenance. The intermediate scale (streetscape) is not addressed.

Brooks suggests that, "Country livers must be prepared to become part of the scene and strengthen it, or our countryside will be lost" (6). I suggest that concern must begin earlier, before anyone moves to the countryside, when development is being planned. Keeping in mind that any development is our future vision, and that once nature is disturbed, the qualities of a naturally evolving landscape can not be easily reproduced, country development should be looked at in the following manner.

Country Development

The above suggests that streetscape occurs through the implementation of aesthetic and perceptual theory, modified when building in the country by particular panoramic and compositional features. When combined, this thought produces "suburban country" theory. Concerned with the preservation of natural elements and the architectural details of the country, this theory would direct building in a more aesthetic/poetic manner. Giving visual direction at three different scales: 1) panoramic/landscaping, 2) massing/compositional, and 3) detail, "suburban country" theory would affect both the singular elements of which streetscape is composed, and the compositional elements. In particular, from country landscape theory, there is a concern with the panoramic/landscaping scale and with the massing/compositional scale. Perceptual and aesthetic theory on the other hand, pay more particular attention to the massing/compositional scale and the detail scale.

The development of "suburban country" theory begins with a discussion of the, I) Panoramic/Landscaping Scale (fig. 106). Moore suggests that there is "the simple fact that each site has its own special qualities of stone and earth and water, of leaf and

Figure 106.
A future site for development.

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blossom, of architectural context, of sun and shade, and of sounds and scents and breezes. Seek these out, and you will discover promises of formal order or artful naturalism..." (Moore 1). This is the first step, to isolate and preserve some special natural elements (fig. 107). Though physically, these elements may be under private ownership, visually, they should be publicly accessible (fig. 108). This could be accomplished by the creation of visual rights of way.

Visual rights of way are a means of preserving various natural elements (fig. 109), and a way of allowing the viewer to participate in one of the most important aspects of the country streetscape experience, the experience of the expanding vista (fig. 110) and the panorama (fig. 111). While not preserving all of the rural scene, maintaining these vistas as well as some elements of "particular views," preserves the essence

Figure 107.
A beautiful knoll is preserved.

Figure 108.
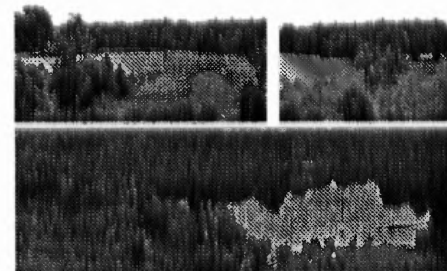*There is no structure or vegetation to block 'special' views.*

Figure 109.
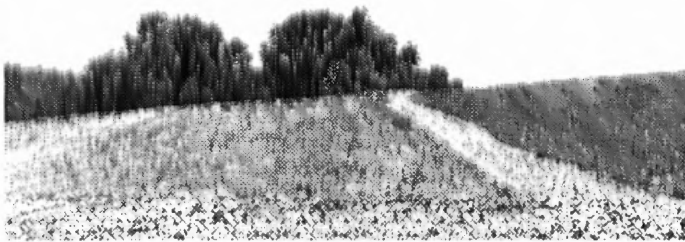*A knoll, trees, and water can be special elements of a site.*

Figure 110.
A panoramic view enframed becomes expanded.

Figure 111.
A panorama develops a totally uninterrupted view.

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of the natural landscape. Visual rights of way should not be identically and uniformly structured. Their configuration and dimensions should be determined by the quality, size, and importance of the landscape elements being preserved (figs. 112, 113). As individualized experiences, these views will add interest and diversity to the streetscape.

Figure 112.
A vertical right of way focuses the view on a special element.

Figure 113.
A horizontal right of way provides a view of a distant knoll.

Equally important as rights of way, is the development of appropriate road patterns. A road pattern refers here to both the main streets of the development, as well as the drives to the individual houses or other structures. Aesthetic and country theory maintain that roads should preserve natural features (trees, hedges, fields, topography, wildlife, waterways) (fig. 114), and be unobtrusively integrated into the

Figure 114.
A road is cut in around existing trees.

Figure 115.
A road follows the natural contours around the base of a knoll.

natural terrain (fig. 115). They become part of the streetscape, not isolated as focal points of a vista

experience. To develop this pattern, it is helpful to look at roads as a means of presenting different sequential vistas. Either one particular type of vista can be focused on (and developed throughout the road system), or a variety of different types can be explored (figs. 116, 117).

To further integrate roads into the total setting and to preserve human scale, the surface should be kept to

a minimum dimension (fig. 118). If this is not possible, than the increased dimension should be of a different color or material or texture (fig. 119). Also, curbing should be kept minimal so as not to increase the focus on defined, man-made edges (fig. 120).

Roadways should be laid down to avoid the destruction of significant landscape materials (trees, hedges, etc.) (fig. 121), when utilizing unique landscape

Figure 116.
A deflected vista is developed as the road moves past a clump of trees.

Figure 117.
A partially enframed panoramic view develops when a road turns to follow the base of the knoll.

Figure 118.
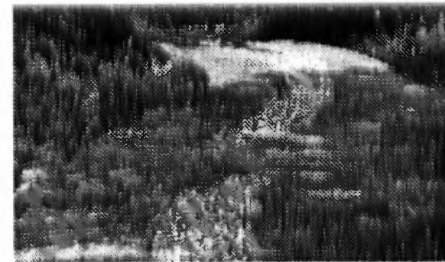*A minimal surface promotes integration.*

Figure 119.
Variations in surface detail produce more visual interest.

Figure 120.
Minimum curbing helps to keep the road from being so visually distinct.

features for focal points or transitional elements (fig. 122). First, preserving mature and established specimens from the rural countryside will serve to remind people of the natural environment through which one moves. Second, these specimens will provide interesting and beautiful focal points for the vista experiences of the new road system. Also, preserving existing specimens provides a reference material upon which to base the overall production of the new residential streetscape. The continual reappearance of similar types of vegetation, as suggested by

Figure 121.
A road carefully located, preserves a stand of trees.

Figure 122.
A tree along the road becomes a focal point in a deflected vista.

Figure 123.
The continual reappearance of specific types of vegetation produces a feeling of continuity.

Downing, produces a harmonic sense to the whole (fig. 123) and much absolute beauty.

Buildings/structures should also be discussed at this scale. As per this aesthetic theory, they should be introduced into the natural environment in a most "unobtrusive" fashion (fig. 124). They should be located to preserve the special elements of the site

Figure 124.
A house is nestled into the existing trees.

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(fig. 125), to develop and maintain the visual rights of way (fig. 126), to effect a compositional relationship to other structures and vegetation masses (fig. 127), and to define exterior spaces (fig. 128).

Figure 125.
A house located to preserve the knoll as a special element.

Figure 126.
A structure maintains a visual right of way through the use of a peephole vista.

Figure 127.
The volume of a house placed at the end of a hedge row balances a clump of trees in the contiguous field.

With the second, II) Massing/Compositional Scale, the buildings/structures become most important, first individually, and then in composition (fig. 129). Individually, based on perceptual and aesthetic ideas, structures would need to possess the following at-

Figure 128.
The exterior walls of a structure extend to create a courtyard, a defined exterior space.

Figure 129.
Sympathetic development should
produce an overall visual composition.

Figure 130.
Building up elements from the pedes-
trian scale, produces a comprehen-
sible building.

tributes. As both Downing and country theory
suggest, structures should develop a humanistic scale
(fig. 130), and as Jackle describes, some definite style
(fig. 131). To maintain continuity and a relationship
with the existing countryside, this style should also
reflect some characteristics of the existing rural
architecture (fig. 132). Additionally, as per percep-

Figure 131.
The axial alignment of elements
produces a recognizable arrangement.

Figure 132.
The tower of the new structure reflects
characteristics of the rural silo.

tual and country thought, structures should construct
identifiable "special places," with their contiguous
surrounding spaces (fig. 133). These defined "spe-
cial places" should reinforce the character or style of
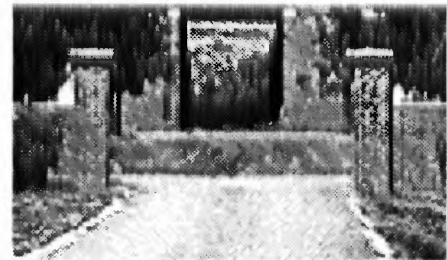the structures with which they relate (fig. 134).

Figure 133.
A grassy strategic space is defined by
the courtyard walls and wings of the
house.

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Figure 134.
The symmetrical exterior space of the courtyard with its ordered vegetation reinforces the axial, classical style of the house.

On the compositional level, a central feature of this theory is the concept that "although buildings may be individually owned, there must also be an overall (collective) visual composition." Referring back to references found in country streetscape, as well as on aesthetic and perceptual thought, visual composition requires that the following be addressed: 1) a relationship of volume of structure (or large vegetation mass), to volume of adjacent spaces should be established (fig. 135). This discernible solid to void relationship between structures, develops a pleasurable, discoverable rhythm. Also voids between the structures allow for the creation of defined exterior spaces, or "special places" (fig. 136). And, 2) a relationship of materials, texture, or color among

Figure 135.
The volumes of adjacent structures define a spatial volume between them, establishing a solid to void relationship.


Figure 136.
A small space between the house and its adjacent structure leaves room for a special little garden space, while the area in front becomes a unique outdoor "living" space.

Figure 137.
Similarities in shape, roof pitch and color tie these structures together, while different entrance and base treatments differentiate them.

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elements should be developed (fig. 137). To continue the idea of rhyme and rhythm, roof shapes should be compatible with their projections establishing some metered cadence (fig. 138). Details should relate either in their type or their style (fig. 139), and a
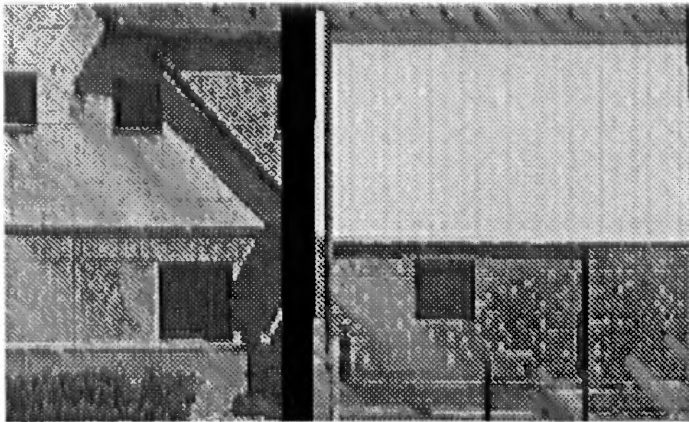
rhythm of entrance/porch or other projections should be established (fig. 140).

Also, as illustrated by country theory and the practical examples of Short Hills, supplemental structures should be added to the composition. These structures should be located to develop interior 'special places' (fig. 141), and be similarly detailed (fig. 142) and of a lesser volume than the main structure (fig. 143). They should also differ in height from the primary
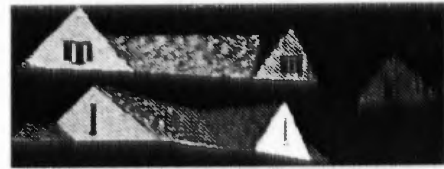

Figure 138.
Projections can be in addition to the main roof or the roofs of the structures themselves can establish a recognizable meter.

Figure 139.
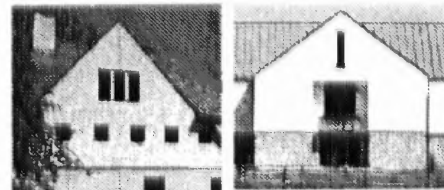*Similarity of window types or of vertical walls help structures relate through their details.*

Figure 140.
Volumetric projections in viewable facades, allow for the establishment of rhythm from structure to structure.

Figure 141
A courtyard becomes a "special place," a private outdoor inverted space.

Figure 142.
Similarities in roof pitch, textures of walls and roofs and similar windows, develop a relationship between structures.

structure. This would allow for the development of a compositional arrangement (fig. 144).

Vegetation and the landscape are important elements in the composition. Country theory suggests that trees should be seen as massing elements against which to balance the volume of the man-made structures (fig. 145). Also, trees and other types of

Figures 143, 144.
Differences in volume and height in relatable structures allows for the development of a composition.

Figure 145.
The volume of the trees simultaneously defines an adjacent spatial volume and balances the volume of the nearby structures.

vegetation should be utilized as spatial enclosures (fig. 146). These spaces, as described by Jackle, should develop the character and style of the structures which they surround (fig. 147).

Figure 146.
Shrubs and trees combine to form a "special," grassy strategic space.

Figure 147.
The organic architecture of the structures is reinforced by the romantic development of their gardens.

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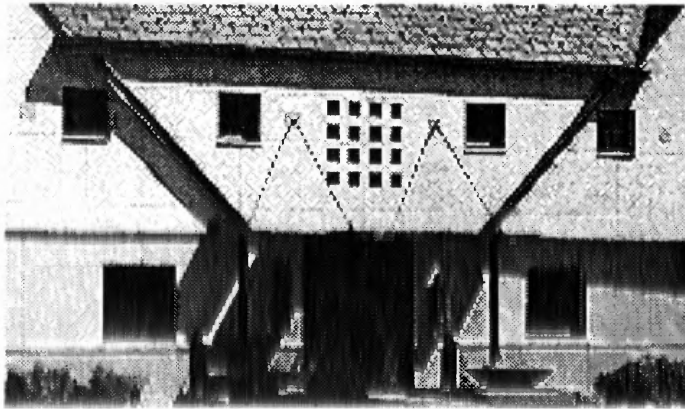The third,   3) Detail Scale, primarily relates to
singular elements. Concerning streetscape, any façades
visible from the street are of primary concern. They
should possess what Downing referred to as absolute
beauty. This means that it is most pleasing to see a
façade: where there is a proportional relationship
between doors and windows (fig.148), where there
are sufficiently detailed elements as to create shadow
lines (fig. 149), where these elements are correctly
proportioned as to be most visually pleasing (fig.
150), where there is some rhythm of solid to void
created by the elements of the façade (fig. 151), and
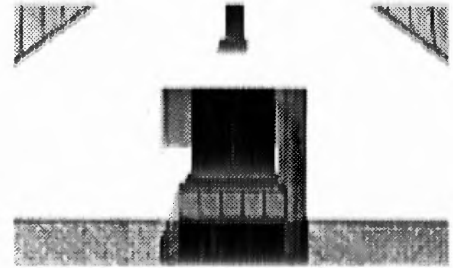where the elements of the façade are arranged in such

*Figure 149.
The creation of shadow lines in the
entrance detail draws attention to and
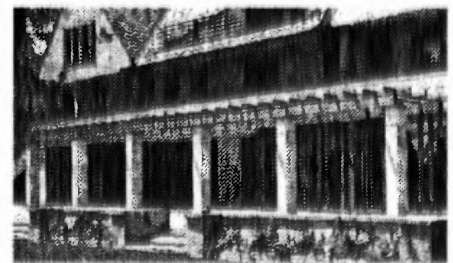creates interest in this part of the
facade..*

*Figure 150.
These columns are visually satisfying
as they appear to be 'structurally'
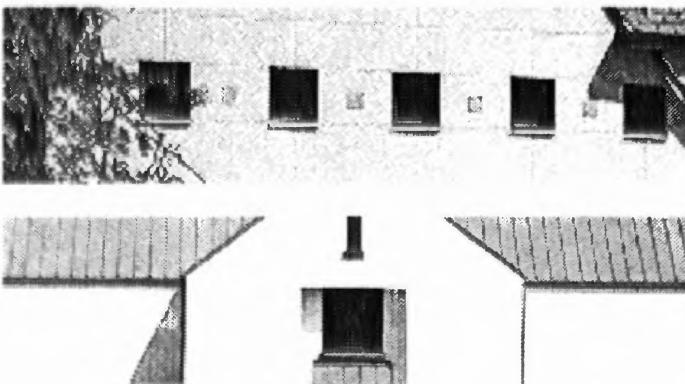proportioned to carry the weight of
the rafters.*

*Figure 151.
An understandable solid to void
relationship is visually pleasing.*

a fashion as to create some visual direction (fig. 152). This visual, aesthetic, value system references thought linking the quality of the natural landscape with romantic and classical principles of architectural design. While alternate propositions have been developed (Archigram, Eiseman, Gehry), they remain untested as substitutes to a well established and accepted tradition.

Figure 152.
Vision is attracted to the facade by the establishment of a vertical ordering of the windows.

Also important at this scale are street furnishings, such elements as benches, planters, light fixtures, sign posts, fences, and gates. These smaller visual elements help to subdivide spaces and establish a sense of place. They should be of a natural material and display some detail which reflects back on rural influences; they should reflect design qualities consistent with and influenced by the particularized architectural styles, (romantic, classical, etc.) of the structures with which they relate (fig. 153). This is also true of any paving or sidewalk patterns and materials which likewise subdivide spaces. The materials should be natural while the patterns should be consistent with the site's developed style (classical, romantic, etc.) (fig. 154).

Figure 153.
A natural fence continues the rural feeling while the space described by the fence reinforces the organic development of the main structure.

Figure 154.
The texture of the natural pebbles continues the romantic feeling established by an English country house design.

Vegetation is most important in the development of suburban streetscape in rural areas. Existing rural

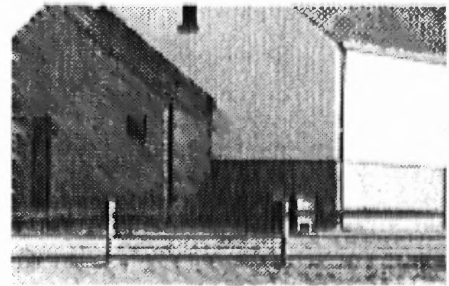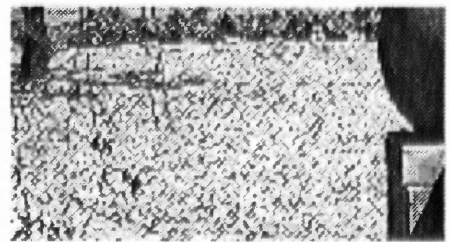varieties should be continued throughout the new development (fig. 155) as well as rural patterns of the open countryside (i.e. on a smaller scale): the meadow (defined by a body of water, hedges, or a stand of trees), cultivated fields and orchards ((fig. 156). This

'rural design' should be enhanced by individualized specimens which relate in type and pattern to the style of the structures which they articulate, i.e. using vegetation types found in an English or French country garden if they relate to a structure of a similar style (fig. 157).

Figure 155.
A native tree maintained in the suburban development links a new structure to its rural heritage.

Figure 156.
Vision of the rural 'meadow' is maintained by the creation of open grassy areas which are defined by rural types of vegetation in combination with individualized specimens.
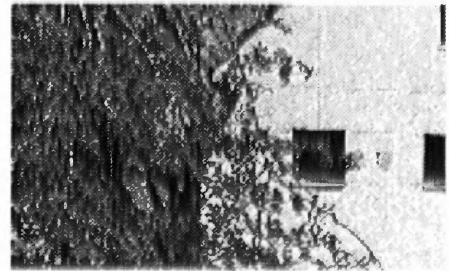
Figure 157.
The softness of the hanging branches and the filigree pattern of the weeping cheery leaves stands in gentle juxtaposition to the flat facade of the 'modern' English country house.

Collaborative Thought

The above visually illuminates building aesthetic streetscape in a rural environment. The desire is that these ideas be used to generate visual guidelines to aid in more aesthetic, humane, and responsive development in rural areas. Existing zoning laws, personal

prejudices, and financial concerns could make it most difficult to implement. However, given the importance of our built environment the effort is most worthwhile. Architects and planners, Andres Duany and Elizabeth Plater-Zyberk, who design new neighborhoods confirm this concern, they work so "that the future is of equal value to the past, and that tomorrow's preservationists have something worth conserving from our own time" (Dean 56) (fig. 158).

Figure 158.
At Seaside, Florida Architects Duany and Plater-Zyberk work to design a community which will be "worth conserving from our own time" (Dean 56).

They believe that developing quidelines is most helpful, as development responds to building and zoning codes. As Duany notes, today's codes "are meant to keep cars but not people happy." So to change development's direction, and make people happier, the codes must be changed (fig. 159). Duany says: "I spend half my time coding...we (Duany and Plater-Zyberk) are obsessed with codes" (Dean 59).
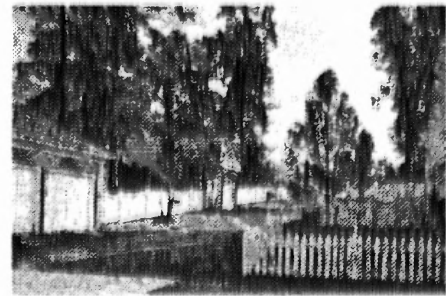
Figure 159.
In their communities, Duany and Plater-Zyberk design environments for cars which make people happy as well as cars.

Though differing from community to community, their guidelines are concerned with "typical street arrangements, the placement of landmarks, the width of sidewalks, the space from one building to the next, ...how buildings [are] grouped according to size and type, and how their cornice lines, materials, and other architectural details [are] related" (Dean 58). Going beyond purely visual issues, they develop both an
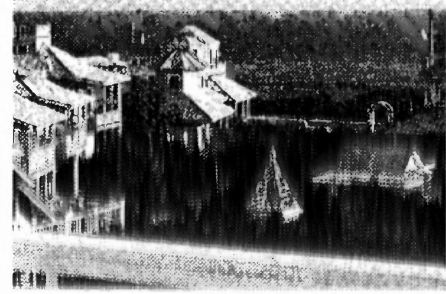
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urban, and an architectural and landscaping code (Lotus 20-21) (fig. 160).

URBAN CODE · THE TOWN OF SE

Figure 160.
Duany and Plater Zyberk spend alot of time developing guidelines to direct future growth. They describe different housing types and for each type there are requirements for 'yards,' 'porches,' 'out-buildings,' 'parking 'and 'heights.' (Lotus 20-21)

Likewise, communities themselves, concerned with their appearance, have developed new codes and visual guidelines. Pasadena, California h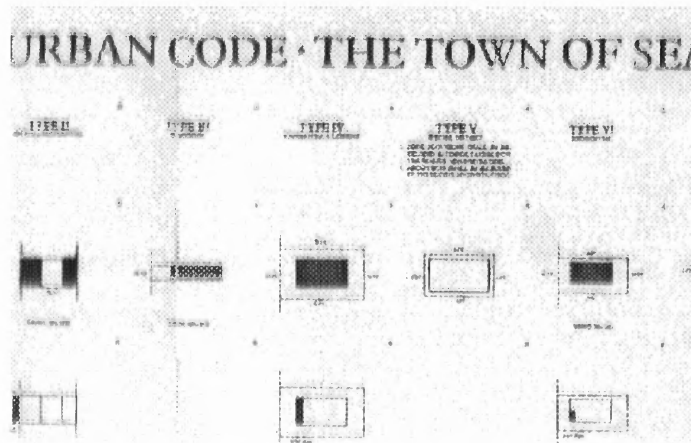as introduced such a guideline to "communicate to developers a vision of the City of Pasadena which is intended for the future," to preserve its character as "a city of gardens" (Pasadena 3). Included in this guideline are standards for the development of: Gardens, Parking and Architecture. Based on visual guidelines, the code describes the: character, location, and size of elements (fig. 161). It also discusses these elements in composition, believing that the view along the street involves both singular elements and elements in composition.

Connecticut, concerned with the disappearance of its rural land, has also developed a guide, <u>Dealing With</u>
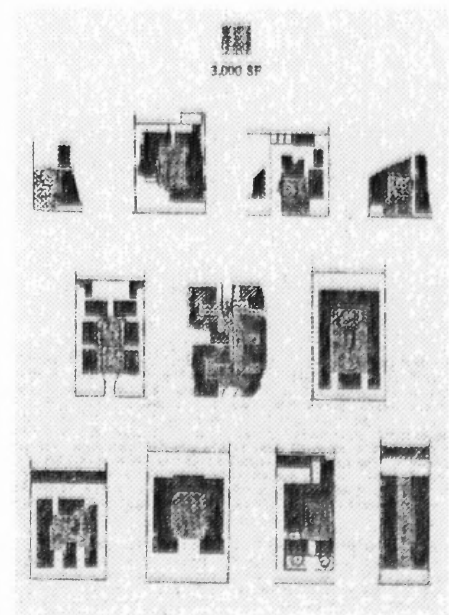

Figure 161.
From the Pasadena ordinance, "The diagrams ...represent an overview of garden character, garden size and building type as it appears in well loved examples of Pasadena's heritage.

Change in the Connecticut River Valley: A Design Manual for Conservation and Development. The
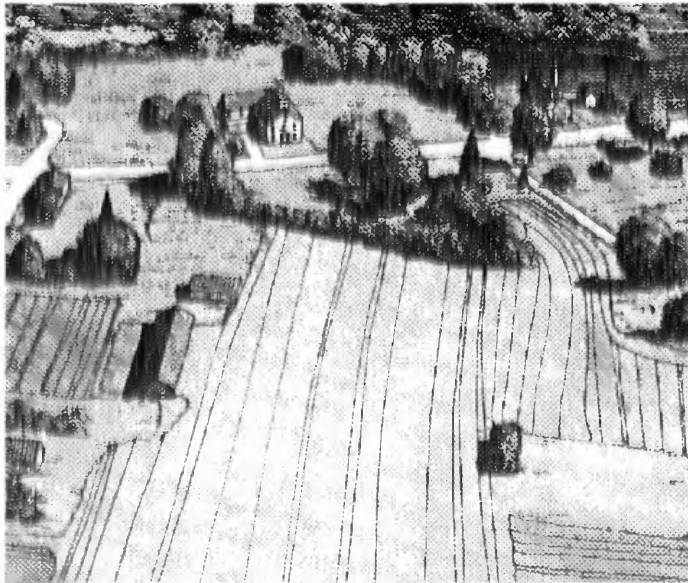

Figure 162.
From the Design Manual, a drawing of a rural site before development.

manual analyses a number of conventional develop-
ments and then discusses alternative solutions which
are sympathetic to the preservation of the rural
environment (figs. 162-4). Specifically, it develops
"Model Guidelines and Performance Standards for
the "Review of Site Plans in Rural Towns." Such
issues as: Setbacks, Parking, Screening, Roadside
Trees, Lighting, Placement of Buildings, Facades,
and Signage are discussed. There is also a section on
"Special Districts" which accounts for particularized
concerns. The purpose of these guidelines is to
encourage "future growth patterns in the Valley
(which) will better respect the region's special char-
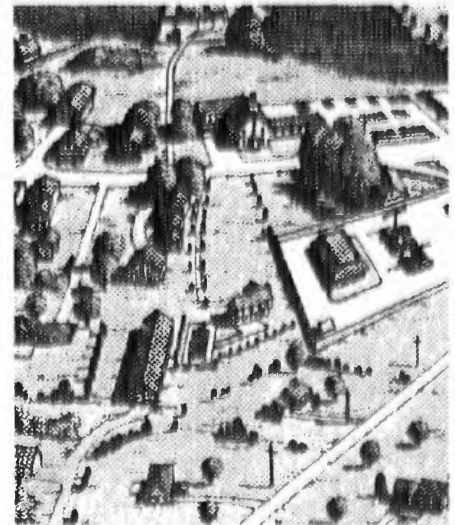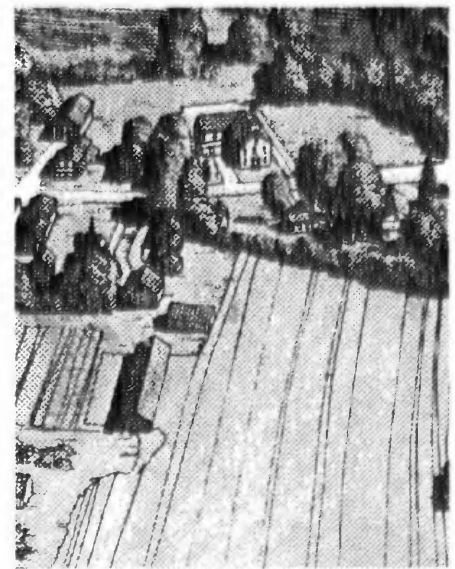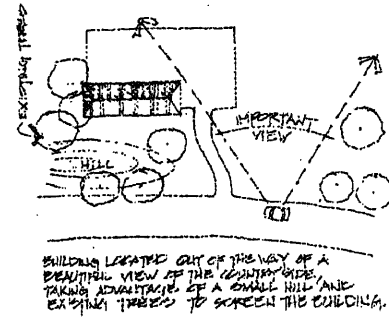acter and resources, to protect "the variety of farms,

Figure 163.

Figure 164.

*Figure 163 is an example of a conven-
tional development plan. Figure 164
shows a creative development plan
which preserves the 'character' of the
farmland (Lincoln 19-21).*

existing adjacent buildings.
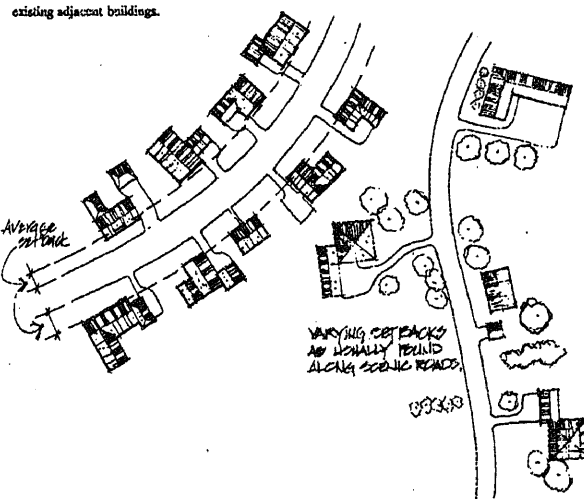
Figures 165, 166.
As proposed by the Development Guidelines, varying setbacks and views of the site's special elements help to maintain rural characteristics in the new development (Lincoln)..

fields, and forests, of churches and villages, of hills and valleys, of mountains and plains" (Lincoln 1) (figs. 165, 166).

Guidelines are not limited to America. England is also quite concerned with maintaining an aesthetic visual environment. In <u>A Design Guide for Residential Areas in Essex County,</u> there is a concern that recent housing developments are "depressingly characterless and 'subtopian' in appearance: 'prairie planning,' wide open spaces dotted with dwarf trees; anywhere type houses - ignorant of the local vernacular tradition - packaged together in a manner devoid of identity or sense of place" (Essex 1.0) (fig.167).
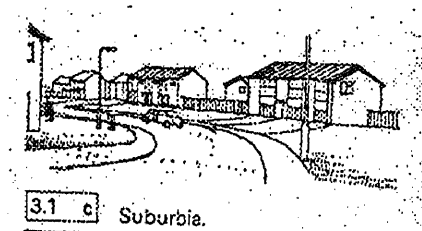
Figure 167.
Suburbia as it is described in the guideline, "depressingly characterless and 'subtopian' in appearance...(Essex 1.0)

This guideline is based on the belief that it is essential that "open countryside should remain near at hand for

people to enjoy." To this end, certain housing types, as well as lot coverage percentages have been developed, notions of privacy, ideas of sunlight, minimum garden areas, paths for vehicular and pedestrian movememt, concepts of spatial definitions and human scale in the environment are also addressed. It defines suburbia as "fragmented architectural compositions set in a beleaguered landscape." It states that "the failure to organize space properly is the most fundamental reason why suburbia fails visually" (3.1d) (fig. 168).

3.1 d The Visual spectrum of Settlement

Figure 168.
The guideline proposes a new rural environment for suburbia built around principles of landscaped space.

The conclusion of this thought supports guidelines as a method used to direct future growth; aesthetic guidelines will direct it in a manner sympathetic to the existing rural environment. The following, based on the above theories, presents an outline which, described and dimensioned according to the particular site considerations, can be presented as a visual guideline.

A Visual Guideline Outline:

1.   Panoramic Design Standards

1.1.   Special Elements:
1.1.a   Described
1.1.b.   Dimensioned

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1.2.   Visual Rights of Way:

1.2.a.   Located
1.2.b.   Dimensioned

1.3.   Panoramas:

1.3.a.   Located
1.3.b.   Dimensioned

1.4.   Roads:

1.4.a.   Layout determined
1.4.b.   Vistas developed
1.4.c.   Surface dimensioned
1.4.d.   Curbing described

1.5.   Vegetation:

1.5.a.   Vernacular types described
1.5.b   Promulgation method described

1.6   Structures:

1.6.a   Vernacular images to be developed,
            determined and described
1.6.b.   Site locations described
1.6.c.   Types of compositions to be developed
            described and dimensioned
1.6.d.   Types of exterior spaces described and
            dimensioned

2.   **Compositional Design Standards**

2.1.   Individual Buildings:

2.1.a.   Methods described for development of
            humanistic scale
2.1.b.   Allowable styles described
2.1.c.   Types of exterior places to be developed
            described

2.2.   Buildings in Composition:

2.2.a   Volume Relationships established
2.2.b.   Voids described
2.2.c.   Relatable building characteristics
            described
2.2.d.   Relatable projections described
2.2.e.   Relatable details developed

2.3.   Supplemental Structures:

2.3.a.	Spatial relationships described
2.3.b.	Relatable details described
2.3.c.	Volumes dimensioned
2.3.d.	Heights specified

2.4.   Vegetation:

2.4.a.	Site locations described
2.4.b.	Style described
2.4.c.	Varieties described

3.   Detail Design Standards

3.1   Facades:

3.1.a	Proportion of openings described
3.1.b.	Shadow Lines described
3.1.c.	Proportion of Details described
3.1.d.	Solid to Void relationships described
3.1.e.	Visual Direction described

3.2.   Street Furnishings:

3.2.a.	Style described
3.2.b.	Materials described
3.2.c.	Locations determined

3.3.   Paving:

| 3.3.a. | Style described |
3.3.b.	Materials described
3.3.c.	Locations determined
3.3.d	Dimensions established

3.4.   Vegetation:

| 3.4.a. | Varieties described |
| 3.4.b. | Style described |

Conclusion

To make the above outline a workable document, it would be necessary to continue with the precriptives for the above terms. Duane and Plater-Zyberk have

found it possible to do this through visual design charts, other designers use combinations of visual and verbal descriptions. Regardless of the method the end result should be the development of aesthethic streetscape.

However, the development of measurable guidelines is beyond the scope of this paper. My efforts here have been to stimulate interest in the built environment as 'visual display' because it is not only our legacy but our daily experience. There appeared in the San Francisco Museum of Modern Art Journal an article "In the Spirit of Modernism" which says: "At the root of architecture is the marriage of the rational and the poetic -- the mingling of science and art. Architecture must embrace the rationalities of functional requirements, building codes, structural design, and construction budgets, and make them elements of a greater poetic composition that serves people and enriches their lives" (Journal). This is how I feel about aesthetic streetscape. It is an opportunity to enrich our lives. Before our rural environments become pry to development which fails to recognize this, we should struggle to develop and implement manageable aesthetic guidelines which will ensure these values (fig. 169).
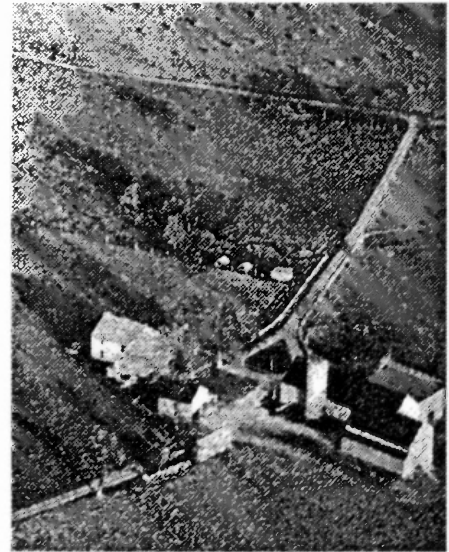
Figure 169.
Before our rural environments fall pry to development which fails to recognize their aesthetic value, we should implement aesthetic guidelines to ensure their longevity.

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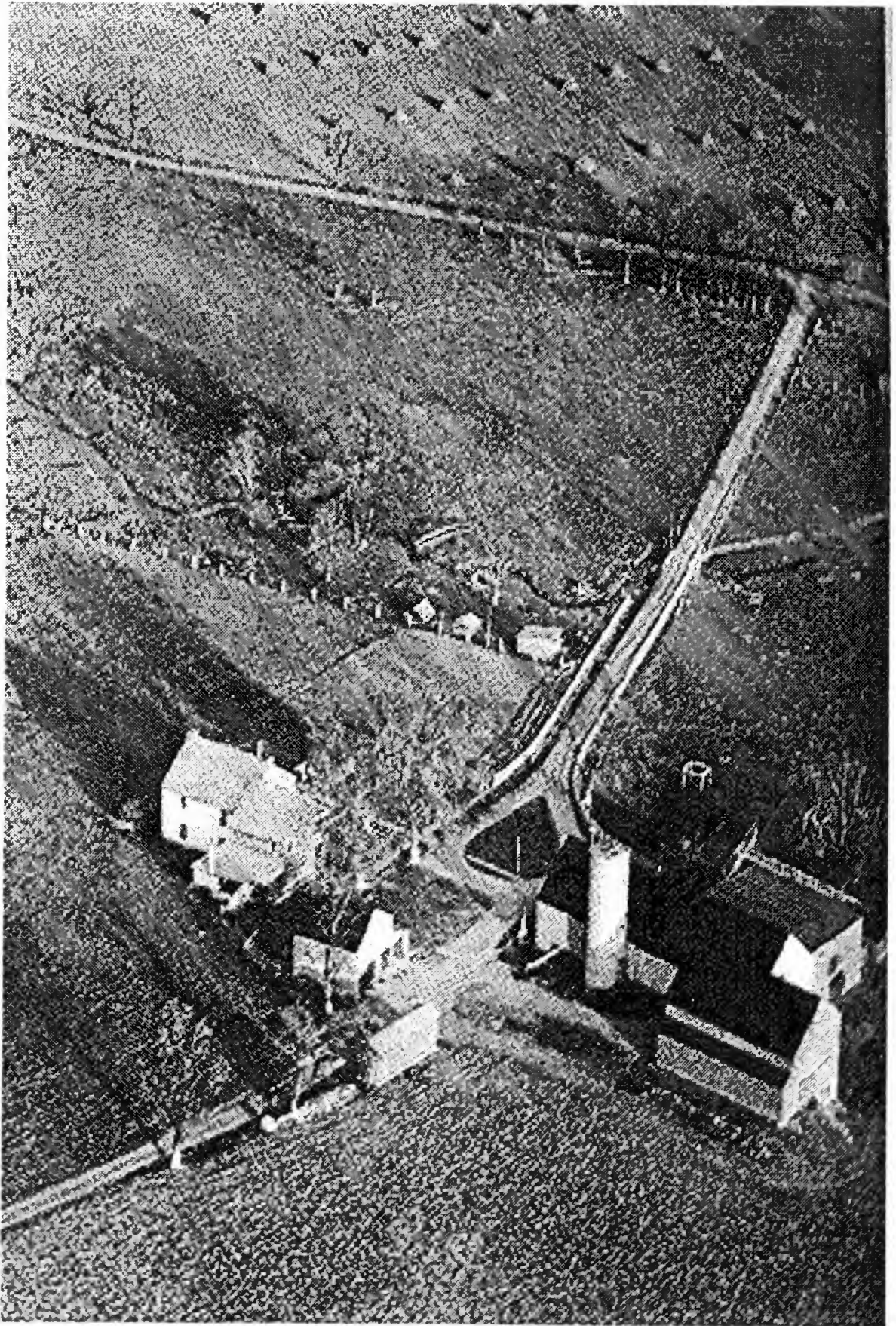
ADDENDUM A

The following is a questionnaire designed to test the importance of our visual environment. The group used in the study was a special group of Juniors at Millburn High School who were studying the history of Millburn from an historical point of view with an emphasize on the town's architectural heritage. It was felt that this group of 16 students which came from all parts of the township was best suited for the research because it: 1) was old enough to know the town and young enough to, hopefully, have some fresh ideas, 2) had had some enlightenment on 'seeing' what was in the town, and 3) was willing to take the time to do the questionnaire.

QUESTIONNAIRE:

I am doing a study on suburbia and whether 'suburbia's visibility' makes a difference to those who live there. By 'visibility' I mean, what it looks like. To test the value of 'visibility' I have developed a number of questions designed to determine the 'image' (picture in your mind) of the town. My belief is that strong visual design will evoke a strong enough image to be remembered.

Please answer the questions as specifically as possible. No small detail is too small. If you remember something, put it down. Thank you for your help.

1. Draw a quick sketch map of Millburn, Short Hills showing its most interesting and important features and giving stranger enough knowledge to move about without too much difficulty.

2. Make a similar, quick sketch of the route and events on the way to the Short Hills

Mall from your house.

2b. Make a similar sketch of the route and events on the way to Millburn High School from your house.

3. Make a written list of the parts of Millburn felt to be most distinctive.

　　Definitions for above:

　　　Parts: something less than the whole.

　　　Distinctive: that which has a special quality or feature.

4. Please identify the following sections:

Glenwood, Old Short Hills, Millburn, White Oak Ridge, Wyoming, Mountain Top, Brookhaven, Knollwood, Deerfield Crossroads, and South Mountain. Describe unique characteristics of above (if any) and locate on your first sketch map.

5. Is there any particular part of town that you like best? Could you describe why? Could you describe the beginning and end of this section? Could you specify whether you would rather walk, ride a bike, or ride in a car through this area? Could you think of anything to improve this area?

6. Is there any particular part of town that you dislike? Could you describe why? Could you describe the beginning and end of this section? Could you specify whether you would rather walk, ride a bike, ride in a car, or not go through this area? Could you think of anything to improve this area?

7. Locate and describe the following:

(Additionally, describe anything nearby which might help to locate the object.)

1. Washington Park.

2. Town Hall, Fire House, Police Station.

3. Taylor Park, Gero Park, Short Hills Park.

4. The Arboretum.

5. The Short Hills Post Office, Millburn Post Office.

6. Glenwood School, Hobart Ave. School, Hartshorn School, Deerfield School, Far Brook School, Millburn Junior High.

7. Christ Church, St. Rose of Lima Church, Church of Later Day Saints, Congregational Church.

8. Temple B'nai Jeshuran, the Synagogue.

9. The Library.

10. The First Aid Building.

11. The Station Shop.

12. Millburn Theater.

13. Two Historic Cemeteries.

14. Water Tower.

15. North Pond.

16. Racquets Club.

17. A Hartshorn House.

18. Five Historic Houses.

19. Paper Mill Playhouse.

20. A Favorite House.

21. A Least Favorite House.

22. A Favorite Place.

23. Least Favorite Place.

8. Describe your street. Make the description as vivid as possible. Include such things as: color of houses, similarity of houses, types of signs on street, types of trees if any, other types of vegetation, color of street, types of sidewalk, type of curbing, types of open spaces, types of garages, distance of houses from the street, anything that might separate your street from some other street in town, etc. Think about this question, it's very important.

8b. Describe your street as you would like it to be. Please be as fanciful as you'd like remembering only that people would live on the street. An example would be that all the houses could be covered with coca cola cans or all pushed to one side with nothing but woods on the other, etc.

9. Take this question home. This time describe your street not from memory but as it actually is. Make the description as vivid as possible. Include such things as: color of houses, similarity of houses, type of signs on street, types of trees if any, other types of vegetation, color of street, type of sidewalk, type of curbing, types of open spaces, types of garages, distance of houses from the street, anything that might separate your street from some other street in town, etc. No detail is too small to include. Also, note whether you like or dislike the items which you mention.

ANALYSIS:

The results of the questionnaire are quite enlightening. The sketches asked for in Questions 1 and 2 proved to be a difficult task for the majority of the children. Many students drew roads as large rectangles with smaller rectangles placed along their edges to designate distinctive buildings or parks. Even when drawn as a line, the street were drawn straight. However, apart from the center of town where the streets are perpen-

dicular to each other, the residential streets are free form and follow the typography. It would be interesting to see how the students would draw the street formations after studying a map of Millburn, Short Hills.

When asked for the most distinctive parts of town, all listed the large park in the center. After this the parts most often mentioned were the movie theater, the pizza shop, the Junior High, the Papermill Playhouse and the Library. Identifying the sections of town which was requested in Question 4 was done primarily by drawing not a section, but a map of streets using those streets which most nearly carried the name of the section asked for. For example, Old Short Hills Road was drawn for the Old Short Hills section. Some students answered by listing all the sections and then differentiating each by a noise or peacefulness factor. One student distinguished the parts by saying that one area had historical houses, another area had older houses, while another, nicest. One area contained a large park and another section had streets which all looked alike. I wonder if 'looked alike' meant the color and composition of the actual street, or the vegetation types, or the houses along the street. Also, a distinction of the parts was made from a social point of view, one area was 'snooty,' while another area was 'family type atmosphere.'

Question 5 proved to be a bit ambiguous. Some students chose as the part of town liked best a section while others chose a place. The sections were chosen because they were good places to walk or ride a bike, or a quiet place with 'pretty' houses to look at with lots of trees and fresh air. Driving would be good to get to the section faster. The specific places chosen were the parks of which there are many. The parks were a great place to walk and play a sport, i.e. tennis if there was a court or baseball if enough space, or just to throw a frisbee. Only one student defined the edges of a section correctly, a park which had different types of houses on opposite sides. As far

as improving the areas, most students chose locations because of their desirable charac-
teristics so there were not too many improvements mentioned. However, one remark
was "to stop building new houses (so close together)."

The students were most specific about Question 6. There was a great dislike for a
section of town which is a strip of "cluttered buildings " with too much traffic. It was
noted to "drive a car (you'd get run over if you were on anything else)." It is sug-
gested that the area be uncluttered and pretty buildings added. One section was dis-
liked because there were no sidewalks, the houses were ugly and there was no open
space. Another student disliked the section of town where the houses were "too new
and gaudy." There was also some feeling about the disorientation of some of the
streets which wound and turned too much and were filled with potholes. Everyone
wanted to drive out of their disliked sections as soon as possible.

As far as locating the places in Question 7, only one student correctly located all. The
two places which were the most difficult to locate were the Church of Latter Day Saints
and the Synagogue. If not known, the comment was that they were not of that belief
and therefore did not know where they were located. For the favorite house, the only
answer which was repeated more than once was "my house," meaning the student's
own house. They also like houses 'made out of stone, " "the one with the big white
columns near Christ Church," a colonial and a Spanish style house. Unfortunately, the
students were not more specific about the reasons for their likes, For the least favor-
ites, two students chose a house on a specific street, without identifying the house, and
two chose a pink house near the library, another chose a house with one shutter. Un-
fortunately, here as with the most favorite, the students did not elaborate as to the
reasons for their likes and dislikes, they just named the house. Was it the color pink
and a missing shutter that was disliked, or was their something else and the color and

the missing piece just a means of identifying the houses?

The most thoroughly answered question was Number 8. It appears that both because the question was very specific and because the students were very familiar with their immediate neighborhoods that the answers were quite specific. One student described her long street by where the sidewalk began and ended and then began again along its length. She also explained how the sidewalk differed from side to side. Others described their streets in terms of the varying house sizes and their set backs from the street. The specific types of trees were also noted. Many students mentioned that there were lots of flowers. And, if a park or a notable building were present, they described it and where it was located along the street.

The 'b' part of this question did not elicit very descriptive responses. The only answers were for more space between the houses, less traffic, more trees and flowers and "a place to go fishing." However, one student did want a street for only 'ultra modern houses."

The last question did not receive a lot of attention. The students did not want to spend anymore time with the questionnaire so only a few answered it and these answers varied so minimally from those to Number 8 that there is nothing additional to add.

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Jakle: 16, ix, 69, 9, 20, 39, 44, 45, 92, 61, 111, 76, 85, 86, 92, 97, 103, 128, 132, 133,

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