5.What Gardens Mean

I. INTRODUCTION

Painshill Park near Cobham, Surrey, a garden created by Charles Hamilton between 1738 and 1773, resembles Stourhead in a number of respects. Both are gardens in the Claudean mode, with a central lake surrounded by rolling hills, varied trees, and a number of garden structures. To create Painshill, Hamilton transformed three hundred acres of inhospitable moorland through intensive excavation, earth moving, and planting.' The garden was laid out as a hilly four-mile circuit. Water raised from the river Mole supplied the central lake in which Hamilton built a number of islands. Painshill contained temples, monuments, and follies in various architectural styles: a Gothic temple, a Gothic tower, a ruined abbey, a Turkish tent, a mausoleum in the form of a Roman triumphal arch, a Grecian temple designed by Robert Adam, a rusticated hermitage, an elaborate grotto, and a variety of Palladian and Chinese bridges. The garden also contained a wide variety of botanical specimens. It was especially known for its cedars and for its many species of conifers from North America. Eighteenth-century visitors to Painshill were guided around the garden in a prescribed circuit, encountering a carefully ordered sequence of monuments, scenes, and vistas.

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Not only were Painshill and Stourhead similar in layout and appearance, they were both designed by gentleman-owners, Charles Hamilton and Henry Hoare, who were themselves well acquainted, having matriculated together at Westminster School. Hamilton advised Hoare about the design and planting of Stourhead (85-86), and in 1766, when he was beset by financial troubles, Hamilton obtained a loan of six thousand pounds from Hoare, an affluent banker. Unfortunately, this was not sufficient to offset his other outstanding debts, and Painshill was sold at auction in 1773.2
Despite similarities in appearance and origin, Painshill and Stourhead function very differently. While Stourhead is a poetic garden whose complex iconography sustains the interpretive debates surveyed earlier, Painshill was instead a painterly garden.3 One commentator, Michael Symes, writes:

> Hamilton composed the pleasure gardens as a series of pictures which altered continually, with surprises and illusions. The lake was made to seem bigger than it was by its shaping and by the arrangement of islands so that the water could not be seen all at once. There were certain set scenes in the gardens, usually centered round a temple or other folly. The paths were skillfully contrived to give the visitor different perspectives and angles from which to view the lake and other parts of the grounds, and the plantings played their part in concealing a view until it appeared to its best advantage.

Thus Painshill offered visitors a series of engaging visual scenes with contrasting emotional tones and carefully composed visual surprises, but it did not have a complex meaning that visitors were to puzzle out.
Certainly, the fact that Stourhead does, while Painshill does not, convey an intricate iconography is not apparent from the "look" of the gardens alone. Some of Painshill's

monuments did in fact have carvings and inscriptions. The pediment of the Temple of Bacchus contained a sculpture (in papier-mâché) of Silenus, drunk, riding an ass and surrounded by satyrs and bacchantes. The temple itself also housed Hamilton's prized marble, a statue of Bacchus over seven feel tall (67). Together these sculptures may well have referred to one of Hamilton's attempted money-making enterprises, bottling champagne from the vineyards on the southeast slopes of his estate.'

Despite these clear-cut references to drunkenness and wine, further facts suggest that the temples and monuments at Painshill did not express a set iconographical program. First, the other statues adorning the Temple of Bacchus-copies of the Apollo del Belvedere, the Venus de Medici, Mercury, and the Venus Marina flanking the entrance, and busts of twelve Roman emperors6 disposed around Bacchus in the interior-would not have contributed to or sustained the bacchanalian theme. Moreover, Hamilton used other follies on his estate in a similar fashion-to house the collection of antiquities he acquired on the grand tour. The mausoleum contained funeral urns, a sarcophagus, and Roman and Greek artifacts (63), while the Gothic tower contained additional marbles. It is unlikely that garden temples serving as repositories for an extensive and randomly assembled collection of sculpture would convey a message via that collection, that is, that they would embody an iconographic program referring to each of the gods and personages represented.

One might object that this argument fails because we can imagine some program or other embracing all these varied characters-Brutus, Bacchus, Lucius Verus, Caligula, Flora, Minerva, and more. But a third consideration weighs against Painshill's conveying a fixed poetic or emblematic meaning. This is the fact that none of the writers who left accounts of eighteenth-century visits to Painshill-John Parnell, Horace Walpole, Richard Pococke, Thomas Whately, William Gilpin, William Robertson-makes any mention of an iconographical program sustained by the garden. More important, Hamilton himself does not mention any such program in his writings. This must be considered definitive. Recall Danto's doppelganger examples cited earlier. Two gardens might have the same appearance yet express quite different meanings; alternatively, two gardens might have the same appearance yet only one express any meaningful or denotative content (and this is in fact the relation I believe holds between Stourhead and Painshill). The fact of the matter in such cases would be determined by the designers' intentions. Thus Hamilton's silence on these matters provides crucial support for the claim that Painshill is a painterly rather than a poetic garden.

Let me conclude with two additional points which support a connection between Painshill and painting. First of all, while in Rome on the grand tour in 1725-27 and again in 1731-34, Hamilton himself took up the art of painting." He may well have sketched some of the Roman scenes discussed in chapter 2. He also acquired a large collection of paintings at this time, many of them landscapes by Italian masters.9 Thus Hamilton would have possessed both the knowledge and the skill to create a painterly garden. (I shall take up in chapter 5 the question of whether and to what extent the principles of painting are appropriate guides to garden design. This question was hotly debated by Humphry Repton and Sir Uvedale Price in their writings on the picturesque.) And second, a number of eighteenth-century visitors to Painshill did stress its painterly aspects, its presenta-tion of carefully framed scenes, "landskips," and vistas. For example, Richard Pococke said that "The whole circuit is four miles, and there are a great variety of prospects from the different parts of it."° John Parnell described some of these in detail in 1763.11 Thomas Whately declares that Painshill "little benefited by external circumstances, but the scenes within itself are both grand and beautiful, and the disposition of the gardens affords frequent opportunities of seeing the park, in a variety of advantageous situations." Overall he maintains that "a boldness of design, and a

happiness of execution, attend the wonderful efforts which art has there made to rival nature. 1112 Finally, William Robertson, an architect who visited Painshill in 1795-after Hamilton had sold the estate but while his overall design as well as his collections (his marbles and so on) were still intact-wrote that "Mr. Hamilton studied painting for the express purpose of improving this place and such was his passion for planting and ornamenting that he expended the greater part of a fine property on this place.

I have been contrasting Stourhead and Painshill to introduce the notion of a painterly garden and to motivate the second of the sister arts comparisons, that between gardening and painting. Because both gardens and paintings are visual arts, and because the label "landscape" applies to each, the comparison between them seems more apt and more persuasive than that between gardens and poems. Many eighteenth-century gardeners, connoisseurs, critics, and historians noted the kinship between these first two arts. For example, Pope declared "All gardening is landscape painting";14 Addison wrote that "a man might make a pretty landskip of his possessions";" and Vanbrugh, when consulted about the gardens at Blenheim, said "you must send for a landscape painter." 16 Thomas Whately took the comparison between gardens and paintings as a given, a commonplace to be subjected to rhetorical play in the opening lines of his book Observations on Modern Gardening (1770),17 while Horace Walpole, writing in the same year, grounded his famous encomium of the garden designer William Kent in the claim that he was "painter enough to taste the charms of landscape."" A later writer, Christopher Hussey, says of Kent "it was he who first conceived the approximation of gardens to painted landscape, with lakes, vistas, temples, and woods worked into a composed whole."

Despite the plausibility and appeal of the comparison between gardens and paintings, the topic is a vexed one. There are a number of different relations which might hold between these two arts. A painting can portray (imitate, represent, be "of") a given garden. Recall the paintings of his estate at Chiswick that Richard Boyle, Lord Burlington, commissioned from the Flemish artist Pieter Andreas Rysbrack in 1728.20 A painting can also allude to, evoke, recall, or remind us of a particular garden. Each of these relations ordinarily proceeds via some degree of resemblance between painting and garden, although a painting and a garden can resemble other in various respects without any of these relations holding. Finally, a painting can "create" a garden by depicting an entirely fictional garden scene, one which does not exist in the real world .2'Turning to relations in the other direction-those in which gardens are modeled on or influenced by paintings-a similar array of possibilities exists. That is, a garden can recreate or copy a landscape painting; a garden can allude to, evoke, recall, or remind us of a painting; and lastly, a garden can function as a landscape painting if it represents some other piece of land, either real or ideal.

The authors of the statements quoted above did not separate out these various possibilities, so just what sort of comparison their remarks endorse is not always clear. Here I shall concentrate on three relations which might be thought to link gardens and paintings: imitation, allusion, and representation.

2. IMITATION AND ALLUSION

It was claimed of a number of eighteenth-century English gardens that they imitated (more precisely, that certain portions of them imitated) particular landscape paintings. For example, Ronald Paulson in his book Emblem and Expression writes of Castle Howard in Yorkshire that statues ranged along the grounds caught and guided the visitor's eye and that the temple which comes into view "emerges in fact as part of a picture, a three-dimensional version of a landscape painting by Claude Lorrain."22 Hunt

and Willis elaborate this claim: "At Castle Howard, Vanbrugh certainly invoked three of the most famous ingredients of such a Claude as the Pastoral Landscape with the Ponte Molle, a square and a round building (the Temple of the Four Winds and the Mausoleum, built later by Hawksmoor and Daniel Garrett) and a Palladian bridge.

Stourhead is another garden whose affinity to Claudean landscapes was noted. And since some of Claude's paintings illustrated episodes from the Aeneid, there is an iconographic link as well. Kenneth Woodbridge writes, "There is a picture by Claude Lorrain in the National Gallery called Coast View ofDelos with Aeneas which shows the Pantheon, bridge and Doric portico bearing a curious resemblance to the way in which similar buildings are related to the garden at Stourhead. It represents an episode in Aeneas' journey, before his arrival in Italy . . . . Had Henry Hoare at some time seen Coast View ofDelos with Aeneas? He had a copy of a similar painting.. . but he was never able to possess an original. Like Aeneas, he was establishing his family in a place.

In addition to the suggestion that part of the Stourhead landscape was modeled on the paintings of Claude Lorraine, a letter which Henry Hoare wrote to his daughter Susanna in 1762 introduces a second comparison. Describing a stone bridge that had just been added to the Stourhead landscape, he says "I took it from Palladio's bridge at Vicenza, 5 arches; and when you stand at the Pantheon the water will be seen thro the arches and it will look as if the river came down through the village and that this was the village bridge for publick use. The view of the bridge, village and church altogether will be a charming Gaspd picture at the end of the water."25 The reference is to the painter Gaspard Dughet, also known as Gaspard Poussin, whose landscape scenes had become very popular. Dorothy Stroud lists both Stourhead and Painshill as "landscapes inspired by the paintings of Claude Lorrain and the Poussins."26 Thomas Whately, Horace Walpole, and Uvedale Price all visited Painshill and described the gardens. Christopher Thacker reports that these writers "said that Hamilton had studied Italian painters in designing his garden, and that the spirit of Salvator Rosa was evoked with particular success. 1127 Walpole called the wooded area near the head of the central lake Alpine. H. F. Clark makes a stronger claim, not just that a spirit was evoked but that "[a] slice of the Alps, closely modeled on the drawings of Salvator Rosa, was made at the head of the lake." The painter Gaspard Poussin inspired another of Hamilton's projects. H. F Clark explains that Hamilton "made for his friend the Marquis of Lansdowne at Bowood a cascade from a picture by Gasper Poussin."28 Dennis Wood, writing in the Oxford Companion, concurs with this claim: "The cascade at the entrance to the lake was added in 1785 by Charles Hamilton of Painshill in imitation of a painting by Gasper Poussin."

One last amusing example of a garden influenced by or modeled on a painting is reported by Christopher Hussey in his book The Picturesque. He claims that William Kent planted dead trees in Kensington Gardens to heighten the similarity to Salvator's rugged, romantic landscapes .30 Horace Walpole, in The History of the Modern Taste in Gardening, writes that "Kent, like other reformers, knew not how to stop at the just limits. He had followed nature, and imitated her so happily, that he began to think that all her works were equally proper for imitation. In Kensington-garden, he planted dead trees, to give a greater air of truth to the scene. "

Note the considerable variety in the quotations presented above. Writers speak of gardens imitating paintings (Wood), inspired by paintings (Stroud), being modeled on paintings (Clark), evoking paintings (Thacker), and creating three-dimensional versions of paintings (Paulson). And some simply note a striking coincidence between certain features and their disposition in particular paintings and particular landscape gardens (Woodbridge). I would like to examine what seems the strongest of these claims, the possibility that a garden might imitate or copy a landscape painting. In the discussion that follows, I shall use the terms "copy" and "imitate" interchangeably.

Let me begin with some general remarks about copies. The paradigm of an imitation or copy in our culture today probably comes from the Xerox machine. A xerox copy of a manuscript page is another page so like the original as to be almost indistinguishable from it.

The example of a xerox copy is misleading in two ways: an automatic mechanism is involved, and the original and copied pages are virtually identical. In fact, however, resemblance is neither necessary nor sufficient for one item to be a copy of another. Staples coming off the assembly line of a Tiny Tot stapler factory will resemble one another to as high a degree as the xeroxed pages just discussed. But none of the staples is a copy of any other (though each may be a copy of a prototype used to design the production line). This shows that resemblance is not sufficient for the "copy of" relation.32 Nor is any given degree of resemblance necessary for this relation. On those occasions when the Xerox machine malfunctions and the copy emerges all streaked and smudged, the page produced is still a copy, though perhaps an unacceptable one.

These cases remind us that the relation "copy of" involves a balance between two factors, resemblance and intention. A copy is generated when someone intends to produce an item which resembles another to a sufficiently high degree. The copy must be produced in such a way that a causal chain goes back to the original. This causal chain can involve a mechanical process, as in the case of a Xerox machine. In the case of handmade copiesfor example, a medieval monk copying an illuminated manuscript-the causal chain includes the copyist's intentions and perceptions. These could be spelled out in more detail: the copy results from the copyist's intention to produce a likeness of an object which he perceives as he does because of his perceptual skills, the viewing conditions, his background knowledge, his interests and emotions, and so on. This requirement brings about a sort of defeasibility. If the copyist hasn't seen the original or doesn't intend to produce a likeness, then his creation is not a copy no matter how much it resembles that original. (We might leave room here for unconscious copying to cover cases where an artist is unknowingly influenced and ends up producing a work which closely resembles another he or she has seen. But even here resemblance alone would not establish the copy relationship. Proof of the artist's access to or knowledge of the copied item would also be required.)

Are there perfect copies? If we deem a xeroxed page a perfect copy because no observer can tell it from the original, then we are endorsing an epistemic conception of copy, one relativized, moreover, to a given group of perceivers. One might instead seek an ontological conception according to which a perfect copy is not just indistinguishable from its original but is a perfect replica, sharing all the original's nonspatiotemporal properties. Some of the views Nelson Goodman defends in Languages of Art point to shortcomings of this second approach. Goodman maintains that resemblance is a relative notion, that two objects resemble each other in certain specifiable respects. Furthermore, every object has countless aspects, many of them incompatible.33 It follows that no object can copy (i.e., be a copy of) some other object in every way. In fact, Goodman goes further. In Languages of Art and in the paper "The Ways the World Is," he denies that there is any definitive way that any object is. I suspect Goodman would say of the notion of a perfect copy just what he says about the copy theory of representation, that it is "stopped at the start by inability to specify what is to be copied."

I have been drawing on Goodman's views to challenge the ontological conception of perfect copy. Unfortunately, those views threaten to scuttle the concept "copy" altogether by denying us the notion of an original against which copies can be matched. Rather than endorse Goodman's dissolution of an objective world into countless competing versions, let us dispense with the notion of a perfect copy and gloss "copy of"

as a relation which admits varying degrees of success. If B is a copy of A, then A played an appropriate causal role in B's creation. 'Whether B is generated through a mechanical process or through some person's talents and skills, the overall intention which guides the endeavor is the desire to produce a likeness. The success of the copy is determined by the judgments of people (1) with properly functioning perceptual faculties (2) who have had some experience with things of type A. Clauses (1) and (2) are intended to prevent the rejection of any purported copy on the grounds that some people can always be found who see no resemblance between it and the original. While there will no doubt be cases where copy and original are indistinguishable-for example, the two xeroxes described above, or an excellent forgery that has fooled all the experts who have examined it to date-it will often be true that one item is a copy of another though many or even most people can tell them apart.

One important trait to notice about the loose sense of copy I am proposing here is that copies can inhabit different media than their originals. Consider a pencil copy of a Dürer engraving, a wax copy of a Ghiberti bronze, a black-and-white copy of a brightly colored ad. These examples remind us that copies, unlike replicas and models, do not have to capture all the distinctive properties of their original S.35

Let us return now to gardens and consider how the copy relation might be exercised between two quite different media, gardens and paintings. Since my interest here is in gasdens' capacities or powers, my concern is whether gardens can imitate or copy particular landscape paintings. Suppose then that a garden designer in eighteenth-century England attempted to imitate the section of Claude's Coast View of Delos with Aeneas mentioned by Woodbridge and others, the round and square temples and Palladian bridge which occupy the foreground and right middle distance. Similar structures could be placed in similar positions in an English garden, but many details of the painting would be missing: the two feathery trees (one a palm?) in the very center of the scene, the crenellated tower in the distance beyond the Pantheon, the rustic retaining walls behind the Doric temple. Moreover, the vistas that opened up between the structures would reveal not the harbor at Delos but the coast of Cornwall or the moors of Yorkshire, in short, some stretch of English countryside. (This objection in part rehearses the argument made by Mara Miller about the impossibility of copying or relocating a given garden.)

Any attempt to copy a painting using a garden as one's medium must come to grips with the painter's ability to portray a scene which extends indefinitely into space. The vistas and horizons of panoramic scenes could not ordinarily be reproduced in a garden unless they were quite indeterminate, or unless the garden happened to be situated on the actual site depicted by the painting-for example, a garden in Greece, overlooking the harbor at Delos, designed in imitation of Claude's Coast View ofDelos. And even a garden so fortuitously sited would be unlike the painting in many respects. Certain details would inevitably be lost with the change in media, the switch from watercolor or oils to soil, water, masonry, and plants. Thus a garden might not be able to reproduce the colors, brightness, and illumination of the painting it copies. For example, how could one recreate in a garden the "Old Master" cast of many eighteenth-century landscape paintings? (Tourists of the time imposed these subdued tonalities on the natural landscape by viewing it through a Claude glass.) And finally, a garden is subject to daily and seasonal changes. A garden designed to imitate the early morning autumn light depicted in a particular painting would fail to resemble its model at dusk, in summer, during rain, and so on.

One might object that all these quibbles are beside the point. Since we have rejected the (ontological) notion of a perfect copy, no list of disanalogies between landscape paintings and gardens designed in imitation of them will count against the

copy relation. But this raises a further problem. The relations "copy of" and "allusion to" occupy parts of a continuum. Since no copy shares all the traits of the original, how are to we distinguish among the following (confining examples to the art of painting): a good copy of a given landscape painting, a poor copy of that same painting, a painting which copies some portion of the original, a painting which alludes to the original, a painting which merely resembles the original in a number of respects? (Of course, similar examples can be constructed involving a garden and a painting. A garden might copy an entire painting, either well or poorly, copy a portion of that painting, allude to the painting, or merely resemble it in a number of respects.)

In order to sort out these cases, we must distinguish copying from alluding to. To copy something is to create a likeness of it. To allude to something is to refer to it indirectly, to make others think of it though it is neither named nor reproduced. While allusion is often considered a literary device, it pertains to the visual arts as well. Thus paintings can allude to other paintings as well as copy them. This is most often done by reproducing distinctive features of the target painting (the painting being referred to) For example, Manet's Déjeuner sur l'herbe alludes to Raphael's The judgment of Paris by reproducing the postures of the three right-hand figures, the naked nymph and reclining river gods. Lichtenstein's series of Cathedral prints allude to Monet's paintings of Rouen cathedral by reproducing both their subject matter (the facade of a cathedral) and their structure (a series of views of the same subject). Lichtenstein's varicolored cathedrals do not, however, capture the appearance of an edifice in different sorts of light and weather. Instead, the series' "mass production" undercuts the impressionist zeal to capture momentary atmospheric effects. Lichtenstein remarked in an interview that "The Cathedrals are meant to be manufactured Monets .... It's an industrial way of making Impressionism or something like it-by a machine-like technique."

I support an intentionalist account of allusion, in keeping with the intentionalist account of meaning offered in chapter 3. Of course, circularity must be avoided. It is not helpful to propose that resemblance plus the intention to copy constitutes the relation "copy of," while resemblance plus the intention to allude constitutes the relation "allusion to." Rather, the parameters of such resemblance must be indicated and the accompanying intentions must be spelled out in such a way as to eliminate reference to copying and allusion. Let us say that one painting alludes to another when (1) the artist intends to make others think of the target painting, and (2) does so by referring to it indirectly. Clause (2) as it stands is unacceptably vague. 'While I don't think that we can formulate necessary and sufficient conditions for allusion, talk of indirect reference can be spelled out in Gricean terms, that is, in terms of the reflected and iterated intentions of both maker and viewer.[39] The artist reproduces certain salient aspects of the target painting-subject matter, theme, composition, coloring, style, and so on-intending that the audience will recognize their source and will think of the target painting as a result of recognizing his intention that they do so.

This account of allusion allows for allusion between different arts, since it simply requires that one art work reproduce or transform salient aspects of another. With this generous understanding of the mechanics of allusion, allusion can operate not only from one literary work to another, but also within and between the other arts (from painting to painting, from painting to poetry, from poetry to music, and so on) and, of course, from garden to painting. Clearly, those cases linking different arts will not achieve the same standards of likeness as those which stay within a given art. Peter Kivy, for example, in his book Sound and Semblance, demonstrates the extraordinary range of musical representation. He shows that music can represent not only other sounds-bird songs, laughter, rushing water-but also such abstract concepts as God's patience and the brightness of first light at the creation. The latter two examples do not turn on any

simple sort of resemblance between musical sound and representational content. When we deal with such cross-modal cases-including those involving gardens-the question of whether we are dealing with allusion, copying of a portion, or poor copying of the whole, will have to be decided contextually, in terms of what sorts of similarities the artist could have created.

This said, we can in principle distinguish gardens that imitate paintings from gardens that refer to paintings in other ways. This latter category includes gardens that allude to paintings or evoke them, gardens that bring them to mind. These various relations must be sorted out by reference to the garden designer's intentions. If the designer intended the garden to be a replica or likeness of a particular painting (or a portion of the painting), then the garden is a copy. If the designer intended to have visitors think of the painting as they viewed the garden, then the garden alludes. Note that these two possibilities are logically independent. One might want to make a garden that looked just like a given painting, but not care whether viewers thought of the work or its artist. Or, one might want viewers to think of a particular painting but not care about creating a simulacrum. The two possibilities might also coincide. That is, one might want to make viewers think of a particular painting and also create a garden that resembles it. Finally, if viewers of a garden do tend to think of a particular painting, but this association was not intended by the garden designer, I shall say that the garden brings the painting to mind, where this phrase is meant to flag the absence of any intention on the designer's part to influence his audience in this way.

There will always be a fact of the matter when we try to sort out such cases. The designer either did or did not have the relevant intentions. However, those intentions may not be retrievable now. There may just be no extant evidence about the particular intentions of eighteenth-century garden designers. And if we grant the existence of unconscious intentions and desires, it may not even have been possible for their contemporaries to determine whether a given work alludes to another. But in principle, such cases are decidable. That is, we can specify the kind of evidence that would be decisive, were it to be found: archival records, journal entries, recalled conversations, in which the designers indicate what relation they wish their creation to bear to the painting in questions. (For an example of what would count as confirming evidence, recall the letter quoted above from Henry Hoare to his daughter in which he called a view with a newly built Palladian bridge "a charming Gaspd picture.") Of course, granting that such evidence is available in principle does little to produce it in fact.

Given these qualifications, it remains possible for a garden to copy a given landscape painting. This task could be accomplished in two ways. The garden could present something like a two-dimensional version of the painted scene, copying it out, for example, in a knot garden of evergreens, boxwood, or herbs. Roy Strong notes that some English Renaissance gardens featured complex motifs depicted in this manner. For instance, the garden at one of the Oxford colleges contained knots laid out in the form of the royal and college arms and a sundial .42 Imagine a similar endeavor instead tracing the outlines of Claude's Coast View ofDelos or Poussin's Landscape with a Snake. More elaborate arrangements like the seventeenth-century French parterres de broderie might model a given painting with flowers, plants, and colored gravel. This would permit the introduction of color and shading. One final twist on this arrangement would be a garden whose representational content altered as a changing succession of plants bloomed over the course of a season. For example, the figures depicted in the garden copy of Coast View ofDelos could age as yellow tulips and bronze lilies forming their hair gave way to white peonies; the seas could become more ominous and textured as spiky delphiniums supplanted campanula; and the entire scene could exhibit meteorological changes as skies of dark purple iris give way to tansy and multihued asters-sunshine and a

rainbow.43

Either of the two-dimensional methods just described would generate an awkward, bizarre rendition of the painting in question-surely a horticultural version of paintings on velvet. I don't know of any eighteenth-century gardens that attempted to copy paintings in this manner, yet it is clearly a possibility, a resource to be counted among the powers of gardens. Obviously the more satisfactory way for a garden to imitate a landscape painting is to reproduce the painted scene in three dimensions. There are of course "painting-on-velvet" versions of this enterprise. At present, a group in Columbus, Ohio, is designing a park which will contain a three-dimensional topiary version of Georges Seurat's famous painting La Grandejatte! But clearly there is another way to create a three dimensional version of a given landscape painting-namely, to recreate as many of the painting's salient features as possible-topography, architecture, water, plantings, colors, etc.-in a natural setting. The resulting garden would then contain a three-dimensional copy of a two-dimensional painting.

I would like to describe briefly a contemporary garden that exemplifies some of the referential relationships I have been discussing. Beginning in 1967, the writer and concrete poet Ian Hamilton Finlay created a garden called Stonypath in the southern uplands of Scotland. Small in scale and replete with traditional garden features-ponds, pools, temples, bridges, columns, sundials, monuments, inscriptions-Stonypath has been compared to two gardens designed by eighteenth-century poets, Alexander Pope's Twickenham and William Shenstone's The Leasowes.44 But Finlay's creation is also extraordinarily self-conscious and political. In an article in Art in America Claude Gintz declares Stonypath a "poetic-philosophic garden" which Finlay uses "as a base from which to launch a symbolic counterattack against modern culture. 1141 I shall discuss Stonypath in greater detail in chapter 7. Here I shall concentrate on one way in which this garden complicates and deepens the ties between gardens and painting. Certain sections of Stonypath are garden segments that variously imitate and allude to famous landscape paintings.

The representational relationships in question were created in the garden, then documented in photographs (by David Paterson) which were exhibited in a 1980 exhibition titled Nature Over Again after Poussin.46 The title is itself a play on the words of Paul C&anne, who described his singular method of representing shape and volume as "redoing Poussin after Nature." The comparison is apt since both Cezanne and his seventeenth century predecessor were known for their intellectual and geometrizing styles of painting.47 The images in Finlay's exhibition were created as follows: a section of the garden was planted to evoke or reproduce the work of a particular landscape painter. Then that painter's characteristic signature-for example, Diirer's "AD" with the capital A framing or housing the smaller D within its lower half, or Nicholas Poussin's "NP" with the righthand vertical of the N also forming the stem of the P, or Claude Lorrain's all upper-case "CLAUDI"-was carved on a stone. The carved stone was placed in the foreground of the created scene, and the entire ensemble was then photographed by Finlay's collaborator.

One item in the Nature Over Again after Poussin exhibit represented Dürer's watercolor Das grosse Rasenstuck ("The Great Piece of Turf"). Stephen Bann writes of this section of the garden that

> the reference is precisely to the celebrated water-colour by Dürer, which is not only recreated through a careful planting of reeds, irises and other vegetation but also "signed" by the insertion of a stone block bearing Dürer's monogram. An interesting effect is obtained by this "signature," which is indeed not lost but accentuated when the garden feature is captured in a photograph. It is as if Dürer's

vision were inscribed on the world itself-which includes of course our consciousness of landscape-in the same way as his monogram is perpetuated in the block of stone.48

Another author, Claude Gintz, describes the mechanics of this scene as follows:

> Finlay asks visitors to regard various corners of nature as so many traces of their own culture. For example, beside the "Temple Pool" he has placed a stone slab engraved with the familiar initials "AD," thereby presenting the landscape itself as a representation of Dürer's watercolor The Great Piece of Turf. (Elsewhere on the grounds, we encounter, engraved in stone, the signatures of Poussin, Claude, Friedrich and Corot.) By inverting Czanne's famous dictum "Poussin over again after nature," Finlay believes he can escape the modernist reductivist impasse.49

In addition to DUrer and the artists just named, Finlay's exhibit included garden/photo representations of the work of landscape painters Albrecht Altdorfer, Gaspard Dughet, Jean Honor Fragonard, Giovanni Francesco Guercino, Salvator Rosa, Jacob Ruisdael, and Antoine Watteau.5°

The Durer vista by Stonypath's Temple Pool clearly represents a particular painting by that artist. It does so by copying or reproducing the scene Dürer has depicted in Dasgrosse Rasenstuck. Commentators do not mention other individual paintings in their discussions of Stonypath and/or Nature Over Again after Poussin. Therefore, with the other eleven artists just mentioned, it is not clear whether Finlay has, in and through his garden, represented particular landscape paintings, alluded to each artist's entire oeuvre, or simply evoked the style of each painter without recreating or referring to a given work. Some remarks by Stephen Bann suggest the latter possibility: "The photographic plates, each taken in a specially adapted section of the garden, are used to secure identification with traditional types of landscape, as represented by the great painters: Claude, Fragonard, Watteau, Salvator Rosa, etc. Finlay could scarcely have demonstrated more forcefully the way in which the garden has come to seem, for him, the epitome of culture as a whole."

Bann's mention of types of landscape might be taken to mean that Finlay's landscape ensembles refer even more generally to subgenres of landscape-classical or ideal, sublime, rococo, and so on. However, the inscribed signatures in the foreground of each scene establish more specific references. I think we should interpret "types of landscape" here as referring to those recurring characteristics which allow us to identify both general and individual style. (I discussed Wollheim's distinction between general and individual style in chapter 3.) Nelson Goodman rightly insists that style descriptions are based on content as well as form. Finlay's garden scenes refer to the style and oeuvre of particular artists by reproducing crucial content: the sorts of landscape details they typically representedstubbly furrowed fields (Corot), steep inclines, gnarled pines, and jagged fallen trees (Rosa), richly textured ground with low foliage and rustic stepping stones (Dughet)-as well as the emotions they typically evoked .12 Together, the scenes, artifacts, photos, and labels Finlay assembled to create his 1980 exhibit have a density of reference rivaling that in Pope's allusive waterfront ensemble discussed in chapter 3. Many of the chains of reference here, however, are visual rather than verbal. They testify to the links between gardens and landscape paintings, to gardens' ability to imitate and allude to representations.

At the beginning of this section I quoted various claims about eighteenth-century gardens that were said to copy paintings by Claude Lorrain, Gaspard Poussin, and

Salvator Rosa. I have also indicated the difficulties involved in definitively establishing such claims. Interestingly, few present-day commentators believe that such copying was an important or central feature of eighteenth-century English gardens. Consider the gardens designed by William Kent. 'While Horace Walpole, writing in 1770, called Kent "painter enough to taste the charms of landscape" and claimed that he "realised the compositions of the great-est masters in painting," recent writers offer alternative accounts of his designs at Claremont, Rousham, Stowe, and elsewhere. Thus Christopher Thacker's comment that "Kent's training led him to see gardens not only in terms of Claudean landscapes, but as compositions of a three-dimensional yet essentially painterly kind, where the visitor proceeds from one 'landscape picture' into another, and so onwards through the garden" clearly stops short of claiming that Kent copied particular landscape paintings.53 Derek Clifford, in A History of Garden Design, suggests that "there is good reason for supposing that Italian gardens rather than Italian pictures were his model. "5' Edward Hyams, in A History of Gardens and Gardening, declares that Kent's object was not "to make, in his gar-dens, living copies of the paintings of Claude Lorrain, Salvator Rosa or Poussin, or of any other landscape painter."" Dorothy Stroud, in the Oxford Companion to Gardens, writes that the landscape designs which emerged from Kent's pen "suggest that both in the composition and the technique adopted he was strongly influenced by the masque designs of Inigo Jones.1116 Finally, Kenneth Woodbridge writes, "So deeply ingrained in the thinking about this period of garden history is the idea that Kent was inspired by the paintings of Claude Lorraine that comparisons have been stretched beyond the bounds of probability, while other sources such as direct experience of Italian gardens, the theater, and the extended vistas of André Le Nôtre have been ignored. 1157

Note the sorts of considerations that figure in these denials. Though Kent had been trained as a painter, and had seen (and probably owned) works by Claude, these authors cite other experiences and skills that may have equally influenced his garden designs-in particular, his visits to Italian gardens and his commissions to build stage scenery. There are similar denials with regard to the later gardens mentioned above: Stowe, Castle Howard, and Painshill. For example, Hunt and Willis, in their introduction to The Genius of the Place, come to this measured conclusion:

> It is difficult sometimes to see how designers transferred these landscape paintings to the three-dimensional world of English estates. At Castle Howard, Vanbrugh certainly invoked three of the most famous ingredients of such a Claude as the "Pastoral Landscape with the Ponte Molle." . . . At Stourhead its creator's Virgilian theme for the garden lends support to the suggestion that the layout and character are modelled upon Claude's "Coast View of Delos with Aeneas." But with those exceptions and that of Painshill, where part of the lakeside is known to have been modelled on some Rosa sketches, it seems likely that the role of pictures as a pattern-book of designs has been exaggerated or misunderstood (p. 15).

Hunt and Willis describe even the three cases that they concede-Castle Howard, Stourhead, and Painshill-in terms that fall short of the copy relation: the first "invokes" a painting while the other two are "modeled upon" paintings. Michael Symes, while granting the truth of Thomas Gray's claim (from a 1754 letter) that "Mr. Hamilton formed many of the beautiful scenes in the grounds at Painshill from the pictures of Poussin and the Italian Masters," goes on to insist that "this does not necessarily mean that Hamilton copied specific paintings at Painshill. The likelihood is, rather, that Italian campagna paintings generally were one of a number of influences on him. He was a keen collector of Italian paintings... but he also knew the Italian countryside at firsthand from

his two visits there."58

S. Lang argues that "The theory most prevalent, that the English landscape garden was modeled on paintings by Claude or Gaspard or Salvator Rosa, cannot be reconciled with an assumption of a slow development towards the fully fledged landscape garden."59 Lang proposes the theater as the landscape garden's actual source.60 Finally, Malcolm Kelsal! writes of Stourhead and its eighteenth-century visitors:

> Any educated visitor of the age would appreciate that the garden is like a living picture and that the invitation is to walk back in time into idealized antiquity alive here, now, in England. No visitor of the time has left upon record remembrance of either of the Claude paintings which undoubtedly shaped Henry Hoare's visual imagination. Such recondite allusion would be unusual in eighteenth-century gardens.61

Let me sum up the tenor of this discussion. While it is possible for a garden to copy a painting, this relation is hard to document for eighteenth-century gardens. To establish the copy claim, one must demonstrate both resemblance between the two works and intention on the part of the garden designer. Coincidence must be ruled out, as must such other symbolic relations as allusion, evocation, and the like.

The conclusion just conceded-that a garden can, at least in principle, copy a painting-constitutes one among what I have been calling the powers of gardens. However, the conclusion does nothing to advance the central claim under investigation here, the claim that gardening, painting, and poetry are sister arts. The conclusion of chapter 3 regarding gardening and poetry was this, that a garden can function like a poem. To establish the sister-arts claim, we must mirror this conclusion for the case of painting and show that a garden can Junction like a (landscape) painting. And this in turn requires showing not that a garden can copy a painting, but that a garden can represent some other piece of land.

Can gardens do this? Can gardens represent other pieces of land, either real or ideal? Representation has been a focus of debate in recent years among philosophers, psychologists, and art historians. In order to see whether gardens can function like paintings, we must briefly examine this ongoing debate and clarify what is meant by pictorial representation.

3. REPRESENTATION

In his paper "How Do Pictures Represent?" (1972), the philosopher Max Black surveyed an assortment of theories purporting to explain pictorial representation.62 The theories appealed to causal history, embodied information, producer's intention, illusion, blance, and "looking like," respectively. Black found each of them lacking. I suggest that work by scholars in three different disciplines-the psychologist James Gibson, the philosopher Nelson Goodman, and the art historian Ernst Gombrich-delimits the range of plausible answers to Black's question "How do pictures represent?" Their accounts of representation emphasize in different degrees the contributions of resemblance and convention. That is, Gibson's direct realism explains representation as a form of illusion; Goodman's semiotic theory defends something like a radical conventionalism;63 and Gombrich's evolutionary view posits a process of schema and correction whereby inherited conventions are altered in light of facts about human vision. In what follows I shall critically discuss each of these theories. Determining where and why each succeeds or fails will help us construct an alternative account of pictorial representation.

Direct realism is the view that representations function by providing us with the

exact same visual experiences as the scenes they represent. Thus direct realists posit a resemblance between pictures and their subject matter, one so striking as to create an illusion in us. Gibson championed direct realism early in his career. In a 1954 paper he argued that pictures represent particular scenes by delivering to the eyes a sheaf of light rays exactly like the sheaf that would be delivered by the scene itself.64 Gibson's views about representation altered over the course of his career.65 Nevertheless, I want to examine the extreme view he defended in 1954 for three reasons. First and foremost, it is a perennially tempting theory with great explanatory power. Although direct realism is in fact false, many of us have trouble giving up the conviction that, somehow or other, pictures represent by resembling their subjects. Thus it is important to set out the theory's failings convincingly and at length. Second, many theorists writing on representation endorse some version or other of the extreme view. For example, Irwin Rock, in his Scientific American volume Perception, writes that "pictures can be so realistic because artists have used the tricks of pictorial cues in creating images nearly identical to those yielded by the actual scene. '166 As we shall see, that qualification "nearly" is a very important one. And finally, examining the extreme view is important because in learning why it fails, we learn of many differences between perceiving literal landscapes and perceiving landscape paintings. This will not only help establish the "distance" between gardens and paintings; it will also point to some of the distinctive features of gardens, to be explored in chapter 6.

The plausibility of direct realism can be traced back to the system of linear perspective first discovered in the Renaissance. Many writers attribute the system to the Florentine artists Brunelleschi and Alberti. Leonardo was the first to formulate it fully.67 Linear perspective is most easily explained by reference to someone looking out a window. Assume the viewer is observing a detailed scene and imagine that lines are drawn from each object in that scene back to the observer. These lines will form what Leonardo called the visual pyramid or the pyramid of sight, a three-dimensional figure with its apex where the lines converge. Strictly speaking, since we see with two eyes, two such pyramids are determined by every scene. For now, let us just consider the imaginary lines converging from the scene to the observer's right eye. This visual pyramid extends indefinitely into space. To obtain a representation of the view from the window drawn in correct linear perspective, we simply trace the pattern that would be formed when the visual pyramid is intersected by any perpendicular plane-the window itself, an artist's canvas or sketchpad, and so on. The resulting picture will be an accurate geometrical projection of that three-dimensional scene onto a two-dimensional surface. It ought to deliver to the eye an exactly similar bundle of light rays as would be delivered by the scene itself.

There are many problems with this first account of representation. Above all, it does not accord with the facts of human vision. One difficulty was already hinted at. The visual pyramid converges to a single station point yet we see with two eyes. This is a crucial fact about human vision. Because our eyes are separated by about six centimeters, objects subtend slightly different visual angles to each eye.68 And this results in a slightly different retinal image formed in each eye. These disparities provide important depth cues.69 But since the system of linear perspective is defined in terms of the light rays converging to a single point, it overlooks the fact of binocular vision. Representations created in accord with the system must be viewed under extremely artificial conditions in order to generate light rays similar to those coming from the original scene. Such representations-paintings, drawings, and so on-must be viewed with one eye, through a peephole. Clearly these conditions don't replicate our ordinary visual experience of the world.

Movement as well as binocular vision provides difficulties for the direct realist

position under consideration. Our eyes are constantly moving; and we ourselves are often ambulatory as we experience the world. Yet the hypothetical visual pyramid is composed of light rays converging to a single unmoving eye. If the eye moves to focus on different elements of the scene, an entirely new visual pyramid is generated. Moreover, microsaccadic eye movements-the small, constant, and almost indiscernible movements of each eyeare necessary for continued vision. They guarantee that no retinal receptors become overtaxed. If such movement were somehow prevented, certain sets of neurons would be continuously stimulated. They would soon shut down, and we would see nothing at all. In this case, then, direct realism contravenes any possible visual experience.

Our own bodily movements provide further visual clues. As we stroll through or in front of a scene, or merely turn our heads in order to see different portions of it, the objects before us change their apparent relations and appear to move at different relative speeds. Patterns of occlusion between foreground and background objects change, nearby stationary objects seem to move in a direction opposite to our own motion, and objects that are actually in motion appear to move at different speeds depending on their distance from us. None of these effects is present when we view a represented scene. The relations among the objects depicted remain fixed. Thus once again direct realism is not true to our ordinary visual experience. If we allow for more natural viewing conditions-binocular vision, an ambulatory perceiver-the light rays from the representation no longer match those from the scene itself and the two perceptual experiences are quite distinct.

Two more differences between a painting and the scene it portrays complete the critique of direct realism. First, the range of light and brightness that can be captured in paint is much less than that present in the real world. For example, Pirenne notes that the general level of luminance may be much higher, on a sunny day, or much lower, in moonlight, than a painting can reproduce .7' Rock points out that the lightest and darkest regions of an actual scene can differ in their reflectance by a factor of 100,000 while even a photograph can only sustain differences of about 30.71 And second, few paintings indicate the disparities between central and peripheral vision. We see most clearly through the fovea, or central part of our eye (in part because the color-sensitive cones are concentrated in the center of the retina). Our peripheral vision, by contrast, is less accurate and less distinct. As Ralph Norman Haber explains, "Every momentary image is clear and sharp only in its center and progressively more fuzzy the further it is from that center."72 'While many paintings employ aerial perspective to signal the decline in sharpness of vision with distance, very few take into account the diminished acuity to either side of the central focus.

Overall, then, the direct realist claim comes to this: a painting will send to our eyes a bundle of light rays exactly like that coming from the scene represented only if the painting is viewed through a peephole, with one unmoving eye, the scene itself does not contain an extreme range of brightness, and the painting reflects the differences between foveal and peripheral vision.

The conditions just specified will almost never be realized. 'Why, then, does direct realism remain such a tempting view? One fact which contributes greatly to its persuasiveness is the existence of the retinal image. Whenever we look around us, light is refracted by the lenses of our eyes and an inverted image of the scene before us is formed on each retina (the curved surface at the back of the eye). The eye here functions just like a camera obscura. Thinkers knew about the retinal image in the early 1600s. Kepler described its formation in his 1604 treatise on optics,73 while Descartes discussed experiments using eyes removed from the carcasses of oxen that allowed him to directly observe the retinal images formed.74 Since light travels in straight lines, the rules of

geometrical optics which determine the characteristics of the retinal image also govern the pyramid of sight and the construction of perspective representations. This fact, I think, inclines many of us to believe that representation must at base have something to do with the matching of images, and so we endorse direct realism.

Despite these facts, it is very misleading to seek parallels between the retinal image and a painting or drawing constructed according to the rules of linear perspective. This is so because we neither see nor depict our retinal images.75 We do not see our retinal images, because they are in our eyes, not before our eyes. Nor is there any subpart of us that might do the seeing.76 More important, we do not even see the world in terms of our retinal image. A phenomenon known as constancy scaling occurs in which we interpret the world not directly as our retinal images show it to be, but with various corrections in the direction of how we know the world to be. The constancies involve various perceived properties-size, shape, brightness, color. For instance, if two objects of the same size and shape are placed so that one is twice as far from our eyes as the other, the first will create an image exactly half the size of the second. However, we don't see the objects as having these relative sizes. We judge the more distant one to be larger than the size of the image alone would warrant. Shape constancy, too, involves making corrections in the direction of the real. In a famous experiment from the 1930s, the psychologist Robert Thouless showed that we judge distant circles tilted away from us to be more circular than their projected shapes should warrant. He called the effect revealed by his experiment "phenomenal regression to the real." The fact of constancy scaling alone makes it clear that an artist intent on producing a realistic representation of a given scene cannot be said to simply reproduce his or her retinal image.

I have been arguing that misconceptions about the retinal image contribute to the plausibility of direct realism. The fact that a painting constructed according to the rules of linear perspective will generate an image similar in many respects-"shape, size relations, depth information, lightness, and color"77-to that formed on our retina persuades us that direct realism is the correct account of representation. We can avoid this temptation by employing different metaphors, that is, by construing the retinal image as providing stimuli that are received or information that is processed rather than images that are viewed. Gibson does just this in his later writings. His theory of ecological optics switches from the claim of matching light rays to the claim of equivalent information. Once he makes this change, Gibson no longer privileges any one theory of pictorial representation.

Our critique of direct realism has shown that representation is not explained by either (1) resemblance between picture and subject or (2) resemblance between our experiences of each. Let me discuss two alternative theories, those of Goodman and Gombrich, more briefly. If pictorial representation cannot be explained in terms of an exact resemblance between pictures and the objects they represent, then perhaps a quite different explanation is the correct one: pictures may function like natural language, referring to and characterizing objects and scenes through the same mechanisms that descriptive paragraphs use.

Nelson Goodman offers such an account of pictures in his book Languages of Art. He argues forcefully that resemblance has nothing whatsoever to do with representation.78 Instead, Goodman deems representation a semiotic or semantic relation. One thing represents another if it denotes it. Pictures differ from other representations (for example, charts, graphs, paragraphs) in that every aspect of them is aesthetically relevant and demands (and rewards) our attention. (This is spelled out much more carefully in terms of a notational system with the properties of unambiguity, semantic and syntactic disjointness, and semantic and syntactic finite differentiation. These properties guarantee a system that is both dense and relatively replete.)79

While Gibson's direct realist account explained representation in terms of illusion, Goodman's semiotic account explains representation in terms of something like convention. The central role that Goodman accords to habit and entrenchment is evident in the following passages where he characterizes realistic representation: "The touchstone of realism [lies] not in quantity of information but in how easily it issues .... Realism is relative determined by the system of representation standard for a given culture or person at a given time." And again, "How literal or realistic [a] picture is depends upon how standard the system is. If representation is a matter of choice and correctness a matter of information, realism is a matter of habit. "8° Thus for Goodman, what a realistic picture represents is not determined by resemblance or by any other intrinsic property of the picture. It derives instead from external factors, factors determining how easily information issues from the picture. This may be a matter of social practice-for example, what conventions are in place in a given society; it may also be influenced by facts about human vision.81

Goodman argues that a picture's degree of realism cannot be a matter of the amount of information it conveys because two pictures, one "painted in ordinary perspective and normal color," the other "just like the first except that the perspective is reversed and each color is replaced by its complementary" would convey exactly the same information. 1182 But just how easily would we be able to extract information from the second picture? Philosophers disagree about whether we could come to "read" color-reversed pictures as naturally as we read those using the standard arrangement of colors. Richard Wollheim claims that we would always have to laboriously decode the reversed representations," working out, say, that certain red expanses represent green grass while adjacent orange swaths represent blue waves. We would have to work even harder to become sensitive to nuance in the reversed system, able to distinguish the orangey red of the water (blue-green waves) from the purplish red of the young trees (new pale yellow-green growth) and the brownish red of the lawn (sun-dried brownish-green grasses).

'Whether abilities such as these could be cultivated is an empirical, not a philosophical, question. Psychologists have demonstrated the adaptability of human vision. For example, in one well-known experiment, a scientist fitted himself with inverting lenses which turned all his visual images upside down (thereby righting his retinal images.) Within a few days he was able to maneuver among crowded pieces of furniture and to write without hesitation." I suggest that the representations Goodman deems realistic are those that engage adaptable aspects of the human visual system. Other writers label as "iconic" pictures that seem to us natural, devoid of artifice and convention. On Goodman's view, iconic pictures are just those which trigger our most "natural" or deep-seated pictorial habits.

Kendall Walton expresses his dissatisfaction with Goodman's theory as follows: "Goodman offers no insight into the motivations underlying resemblance theories. Why have they often seemed so self-evident as not even to require defense? Why do they persist in the face of obvious difficulties? How could common sense have gone so terribly wrong? 1181 Of course common sense often does just go terribly wrong, so Walton is not here offering us any convincing argument against Goodman's theory. But he does suggest that Goodman fails to acknowledge and address our conviction that representations are like their subjects, that we see their subjects in them. Moreover, from the "inside"-that is, from the point of view of a perceiver interpreting a picture-how are we to tell whether representations which seem to us realistic and iconic seem so because they match certain aspects of our interactions with the real world, or because they are based on conventions which we have mastered and which have become second nature?

I propose the following response to Goodman's view: while any established representational practice will be at least in part conventional, not just any conventions

can take hold. For instance, while it is conventional in Western art to represent circles, squares, cubes, and spheres as we now do in accord with the rules of linear perspective, no usable convention could arise according to which we would use pyramids to represent circles, ellipses to represent squares, curvilinear line segments to represent cubes, and so on. Too much information would be lost. Thus while it true that our system of representation is to some degree conventional, much more needs to be said to explain which conventions can and do take hold, which are suitable to ground a shared representational practice.86

In his classic work from 1960, Art and Illusion, the art historian Ernst Gombrich argues for a view of representation midway between an illusionist and a conventionalist account. He rejects Ruskin's notion of an innocent eye, claiming that artists do not present the world to us exactly as it appears. Instead, Gombrich proposes a more complex interrelation between present methods of representation and the past history of art. He suggests that artists capture visual appearances by starting with schemas passed on to them by previous artists and then varying these in accord with their own vision, emotion, intent, skill, and style. To support this claim, Gombrich considers depictions of curious and exotic phenomena. The fact that many of the errors and anomalies in Dürer's 1515 woodcut of a rhinoceros recur in James Bruce's 1789 engraving of the same animal shows the dependence of the later image on the earlier one. Gombrich explains the necessity for such dependence: "All representations are grounded on schemata which the artist learns to use. But we may now see why he is so dependent on tradition. The injunction to 'copy appearances' is really meaningless unless the artist is first given something which is to be made like something else. Without making there is no matching. 1187

In addition to laying out this "experimental" or "empiricist" aspect of pictorial representation, Gombrich emphasizes the contribution of the audience. Since artists do not present and viewers do not perceive what is seen by an innocent eye, viewing pictures involves interpretation. Moreover, Gombrich insists that any representation is ambiguous, capable of realistically representing a number of different scenes. For instance, any represented object might be medium in size and not too far away, or immensely large and very distant. The same set of marks could depict either situation according to the system of linear perspective. Gombrich also describes certain abstract configurations-later known as Gombrich gates-whose ambiguity extends not only to their size and distance from the picture plane but also to their shape and spatial orientation. Another source of ambiguity is the opposition between an object's inherent color and hue, on the one hand, and the illumination it receives from its surroundings, on the other. One and the same picture might represent a bright pastel object in very dim light or an object with subdued, washed-out color in bright daylight.

Gombrich says this about our "contributions" to the representations we view. "Any picture, by its very nature, remains an appeal to the visual imagination; it must be supplemented in order to be understood. This is only another way of saying that no image can represent more than certain aspects of its prototype; if it did it would be a double, and not even Pygmalion could make one. Unless we know the conventions we have no means of guessing which aspect is presented to us."88 I believe Gombrich is right about the inherent ambiguity of all images; hence we must assume interpretation on the part of the perceiver. We know from the arguments laid out above that this interpretation cannot be based on a strict resemblance between the image and what it represents. Nor can it be based solely on convention; the viewer's perceptual experience matters as well. To find a middle ground between the illusionist and conventionalist accounts of representation, let me turn in closing to two more recent imagination-based theories proposed by Richard Wollheim and Kendall Walton. Both authors spell out

more fully the imaginative and interpretive tasks performed by the viewers of works of art.

In his book Painting as an Art (1987), Richard Wollheim explains representation in terms of a more primitive perceptual ability; seeing-in. Wollheim defines seeing-in as a perceptual experience that occurs whenever we see fanciful figures in clouds, frosted windowpanes, inkblots, or stained walls like those described by Leonardo in his Notebooks.89 The crucial phenomenological property of seeing-in is what Woliheim calls two foidness: we are always simultaneously aware of both the marked surface and the figure seen in it.9° For Wollheim representation arrives "when a standard of correctness and incorrectness is imposed upon the natural capacity of seeing-in."9' This standard is given by the intentions of the image's artist or creator. Of course not everyone will be responsive to such intentions; Wollheim is concerned with the reactions of appropriately informed and sensitive viewers. Their perceptual experiences will be the appropriate ones. They will interpret pictures correctly by looking at them, not simply by appeal to background information or by correctly guessing what the artist had in mind.

Kendall Walton agrees with Wollheim that representations engage their viewers' imaginations. However, he believes that Wollheim's notion of seeing-in is murky and underdescribed. Walton bases his theory instead on the imaginative activity involved in children's games of make-believe. In a series of papers and in his recent book Mimesis as Make-Believe, he distinguishes make-believe from other sorts of imagining. The crucial characteristic of make-believe is its use of certain objects in the world as props. For example, children playing at making mud pies pretend that globs of mud are pies, that the stones in them are raisins, that a larger glob is a larger pie, that dividing up a glob is slicing a pie, and so on. The objects in the world-the globs of mud-mandate or prescribe certain imaginings which the children engage in collectively, often without any explicit rules or arrangements except for the initial invitation "Let's make mud pies." Walton argues that works of representational art function in a similar way; they serve as props for games of make-believe. Paintings, novels, sculptures, plays all prescribe certain imaginings in their viewers.

Walton admits that the games of make-believe we play with works of art differ significantly from those played by children. One important difference is the degree of explicitness involved in each. We never enter a museum and propose to our companions, "Let's pretend that globs of pigment are trees, mountains, and streams" as we view a landscape painting. Not only are the rules of the game of painting implicit, they can't be recovered or formulated. But this leads to normative questions about the games Walton posits. 'What range of games is it possible or appropriate to play with a given painting, poem, or play? A parallel question arises for Wollheim's theory: what range of intentions can be recognized and realized in a given painting? Answers to these questions will determine the scope and limits of our representational practice.

Walton himself gives some examples of inappropriate games. Regarding a children's game of pirates, he says "A tree makes a fine mast on a pirate ship. A tunnel or a watermelon would make a terrible one. 1192 And, regarding Seurat's painting La Grandejatte, he comments that making the painting "a prop in games in which fictionally hippos are wallowing in a mud hole... is to misuse the work. 1193 Confining ourselves to the art of painting, the question "What games is it appropriate to play with this work?" is really a question about interpretive limits and so a question about what things can be seen in terms of others. That is, given that paintings don't represent by recreating a visual experience exactly the same as that created by their subject matter, what range of patterns, shapes, and marks can be used to represent a given subject? I call this problem the problem of assimilative vision.

Ironically, one way to see the nature of assimilative vision is to consider for a

moment a nonvisual example, that of metaphor. Metaphors bring together two disparate items in an identity claim that, while literally false, is figuratively true, economical of expression, and enlightening. Stanley Cavell has analyzed Shakespeare's metaphor "Juliet is the sun" in dazzling fashion, showing how Romeo's words express his love for Juliet and her importance in his life. The metaphor works because various astronomical facts and relationships apply to and illuminate the relation between the lovers: that Juliet is the center of Romeo's universe, the start of every day, the source of light and warmth, the nourishment he needs to grow. 94

Of course, not all comparisons are equally effective. Consider, for example, "Juliet is the door" or "Juliet is the floor." 'While the element of "surprise" here is high, neither metaphor enlightens us about Romeo's feelings for Juliet, and neither flatters his beloved. Although we cannot formulate general rules for creating successful metaphors, we can analyze particular examples and explain why bad metaphors fail.

I suggest that metaphors and pictorial representations are similar in the following respect. Both seem to rely on a sort of likeness or similarity whose parameters can't be explicitly spelled out. But, in each case, we can indicate the range of items which can be effectively assimilated, those which support what I shall call "assimilative vision." We can see one thing in terms of another, metaphorically or, in the case of pictures, literally, not when they have all or a certain percentage of their properties in common, but when an isomorphism holds between the two preserving important structures and relationships. Thus Romeo's trope conveys the quality of his love for Juliet because it indicates that her centrality and importance in his life parallels that of the sun in our solar system. Similarly, a picture or painting represents a given scene not when the properties of the one match that of the other, but when possessed properties can be retrieved from presented ones.

To see how this works in the abstract, consider the following notation adapted from Anthony Savile. An object with property needn't be represented by a picture which itself possesses ", but it must be represented by a picture with some property which is such that can be seen in terms of (the denoted property in terms of the displayed one). And, there are limits on such assimilative vision. "Whether a representation is iconic-that is, whether it seems natural to us, as if we are identifying and interpreting it just as we would the thing itself that it represents-turns on our ability to come to see automatically the possessed properties in terms of the presented ones.

The examples from Wolllieim and Goodman discussed above involving complementary colors and reversed perspective are cases where it is an open question whether or not assimilative vision will take place. Woltheim denies the term "representation" to any ensemble which must be analysed and decoded before it is understood. The reversed format pictures would count as representations on his view fthey came to seem natural to us and if we could understand them-extract information from them-as readily as we do from more traditional pictures. Examples of representations that we couldn't come to read in this way would include the following: a representation in which each object in a given scene is represented by the object to its immediate right; a representation in which each object is represented by an object whose description or name begins with the same letter; a representation in which each salient property is mapped onto a property from a different sense modality. Note that the latter representations might appear quite natural, but even knowing the principles that generated them, one wouldn't then be able to interpret them fully and correctly by merely looking. Thus whether or not a representation is iconic turns not on its appearance but on its principles of generation. Two identical representations might depict entirely different scenes, one iconically, the other not.

My theory of representation is based on the rejection of two extreme views and is

in a middle ground between them. Representation is not based on resemblance between picture and subject, nor on a set of arbitrary conventions. Rather, pictorial representations function by presenting any from a range of images that engage our assimilative vision and allow us to retrieve possessed properties from presented ones. The presented properties—those displayed in the representation-must stand in relations isomorphic to those characterizing the subject matter. Only such an arrangement allows us to gain knowledge of the subject matter by viewing the representation. The range of properties that can fulfill this role is changeable; it is affected by the past history of art and the present facts of human vision. The notions of isomorphism and retrievability are broader than that of resemblance, and unlike the concept of convention, they are linked in various ways to our perceptual capacities and skills. 'While my account of representation isn't a rigorous definition with necessary and sufficient conditions, it has this advantage: it applies to many different media. Certainly gardens are among them.

Let me conclude this exploration. I have examined and rejected five theories of pictorial representation. My positive account of representation is a composite one, integrating insights from each of the theories canvassed.95 On my view, a representation is an array of lines, shapes, and colors which refers to an object, scene, or event, either real or imagined. It does so because identifying features of the subject can be seen in-retrieved from-the representation. The relevant features are any that would aid in the visual identification of similar objects, scenes, or events in real life. Appropriately schooled viewers of the representation experience twofoidness; they are aware of both the formal array and the subject being portrayed. Viewers who have prior experience with other representations in the same system, and who are also familiar with the objects and scenes depicted-or with their component parts-will be able to "read" the representation, interpret it correctly.

4. GARDENS AGAIN

Theories of pictorial representation often take painting as a paradigm case. As a result, representations are thought of all too often as two-dimensional displays. But the question that emerged from our study of the sister-arts tradition was whether gardens might function as landscape paintings. This would require that gardens represent other pieces of land.96 A garden functioning symbolically in this manner would be a three-dimensional object representing another three-dimensional object. 'What was said above about assimilative vision and possessed and presented properties would apply equally well to this case. That is, particular properties of the represented scene, including spatial ones, could be represented by identical properties in the representation; they could also be represented by any from a range of different properties in terms of which the original ones could be seen.

The first sort of representation could be achieved if a garden imitated the salient features of the scene it depicted. The garden could accomplish this by being a sort of model-a reduced-scale replica of all that it was to denote. There are in fact gardens that have functioned like this, many of them in the East. For example, Maggie Keswick in her book on Chinese gardens describes the hunting park of the emperor Ch'in Shih-huang. After conquering his enemies, the emperor destroyed their palaces and rebuilt them surrounding his palace "as trophies of his victories."97 "Beyond the city limits," Keswick continues, "he walled off a vast hunting preserve, the Shang-lin Park, in which he collected tribute of rare beasts and birds and trees from the vassal states. With this, the idea of the park as a microcosm of empire began to be added to its earlier role as hunting preserve .... More and more the Shang-lin Park seems to have become a magical diagram, a symbol of the empire in miniature .... Within it eight rivers converged symbolically

from the four corners of the earth."

Keswick also notes that mountains had special significance for the Chinese. The Western Mountains, together with islands in the Eastern Sea, were thought to be among the homes of the Chinese Immortals.98 Gnarled and twisted rocks of various sizes were used to symbolize mountains; rocks coming from the bottom of Tai-hu Lake near Soochow were especially prized. Keswick coins the term "petromania" to label the Chinese passion for collecting and displaying oddly shaped stones both in gardens and in smaller indoor arrangements on scholars' desks. Christopher Thacker, in his History of Gardens, notes that "in China, the natural mountains and the rocks erected in gardens have always been consciously associated, and their veneration has never been interrupted. "99 Thacker mentions another garden which represents mountains in the manner I have been discussing. It is the Shih Tzu Lin or "Lion Grove" in Soochow, which "was laid out around 1350 as part of the garden surrounding a temple, to commemorate a mountain retreat called 'Lion Rock' on the T'ien Mu mountain." The "mountainous character" of the garden," Thacker continues, "is indeed overwhelming. A central lake... is dominated by the artificial mountain on which the Hall of the Spreading Cloud stands. This eminence is reached by twisting paths leading through, under, and over the massed and fantastic rocks." 100 Keswick discusses one other interesting aspect of this mode of garden representation. Taoists believed that miniature representations gained magical potency and enhanced their creators' likelihood of gaining immortality. Again quoting Keswick: "By recreating a mountain or a demon on a reduced scale, he could focus on its magical properties and gain access to them. The further the reproduction was in size from the original, the more magically potent it was likely to be .... Representations of potent sites in miniature were thus not aesthetic in origin, but were pieces of practical

I have been describing oriental gardens that represent through modeling and miniaturization. But just as a painter often varies or distorts the objects she depicts in order to achieve certain expressive effects, a garden designer creating a garden that represented some other piece of land might want to do something more artful and ambitious than merely making a scaled-down replica. She might want to make a statement about the represented scene rather than merely denoting it by creating a likeness. (Recall Danto's definition of works of art as things that make statements and require interpretation.)

Consider some examples. A garden in the country might represent some other rural landscape by reproducing its significant topography and flora. (Recall that Horace Walpole declared a wooded section at the head of Painshill's central lake to be Alpine. Whether this section of Painshill represents the Alps, alludes to them, or simply brings them to mind would have to be determined in the ways discussed above.) An eighteenth century English garden might represent the English countryside and make a statement about enclosure and the loss of commons. 102 A present-day garden might represent some earlier garden landmark. For example, I might create a representation of Stourhead in my small St. Louis back yard. A garden might represent some exotic place or even a nonexistent one. Thus chinoiserie in an eighteenth-century English garden might represent Chin Shih-huang's legendary hunting park; a lush garden with fountains and orchards might represent biblical Eden or Milton's paradise; a contemporary garden might represent the world Alice entered when she went through the looking glass. And of course a representational garden needn't use as its media all or any of the materials present in the place represented. A Chinese mountain range or a particular section of the Swiss Alps might be represented entirely by topiary. (The garden at Packwood House in Warwickshire reputedly depicts the Sermon on the Mount in this manner.) Mountains might be represented not by mounds of earth or conical yews but by arrays of spiky blooms: lupine, delphiniums, gladioli, and so on. A representational garden might be

more expressionist, denoting a particular piece of land not by reproducing its topography but by arousing the emotions it provokes. (This would be the garden equivalent to the work of Max Beckmann or Willem de Kooning.) And of course a representational garden, one that functioned as a painting, need not represent land only. A garden might pictorially represent water. The "dry river" in a traditional Japanese garden, consisting of smooth polished stones arranged to express the energy, flow and turbulence of a stream, is one such example. A more ambitious garden might portray the sea in any of its forms and moods.

The examples just listed have all been rather fanciful. I know of no actual gardens that function in these ways. But the crucial point once again is that such gardens are possible, they can be imagined. Functioning like a painting, representing some other piece of land, is clearly one among gardens' powers.