

REVISION AND EXPLORATION:

GERMAN LANDSCAPE DEPICTION AND THEORY IN THE LATE 18TH CENTURY

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THESIS ABSTRACT

"Revision and Exploration: German Landscape Depiction and Theory in the Late Eighteenth Century"

My thesis focuses on the work of German painters in Italy c.1770-1800, and addresses issues raised by their complex relationship with the 17th century Italianate landscape tradition. Jakob Philipp Hackert (1737-1807), Johann Christian Reinhart (1761-1847), and Joseph Anton Koch (1768-1839) worked in Italy precisely because they considered themselves to be the inheritors of the 17th century landscape style of Claude, Dughet, Rosa, and Nicolas Poussin. But while the German paintings do resemble the earlier works, they also revise the 17th century programme of representing Ideal nature. They are more detailed and precise in their depiction of natural phenomena; they also represent natural events and sites not included in the traditional canon. Extrapolating from 18th century critical terminology, I have developed the term "particularity" to focus attention on this unprecedented attention to the details of nature. I argue that the late 18th century German landscapes revise the Italianate landscape tradition so that it embodies particularity, and that the impetus for this change comes from two contemporary sources: natural history -- especially the nascent sciences of geology and biology -- and art theory.

My argument is divided into three sections. In the first, I establish the existence and visual characteristics of particularity first by contrasting 17th century versions of the famous cascades at Tivoli (by Claude, Dughet, and others) with depictions of the same site by late 18th century German artists, and second, by describing the new sites which were explored and depicted by Hackert, Reinhart, and Koch. In the third and final chapter of this section, I discuss in detail the relationship of landscape depiction and natural science in a specific case: the scientific landscape illustrations by Pietro Fabris for Sir William Hamilton's Campi Phlegraei: Observations on the Volcanos of the Two Sicilies (1776). The involvement of British, German, and French landscape painters with discoveries in contemporary natural history is vividly exemplified by Hamilton's book. In the second section, I consider the features of German natural history and art theory c.1770-1800 which encouraged and shaped landscape painting. In two separate chapters I examine the ways in which Herder, Kant, and Goethe contributed significantly to each of these areas of thought. The relation between particular and universal, I argue, is fundamental to both natural history and art theory at this time, and the particular is emphasized in both disciplines. In the third section, I take up the implications for landscape depiction of this emphasis on particularity by focusing on specific contacts between German landscape artists and ideas from natural history and art theory.

As a conclusion, I contend that the work of Carl Gustav Carus and Caspar David Friedrich should be seen as the culmination of the close study of nature championed by Hackert, Reinhart, and Koch, and thus interpreted more in naturalistic, rather than allegorical, terms.

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INTRODUCTION

Renewed interest in landscape depiction is one of the most significant cultural phenomena of 18th century Europe. The landscape genre was elevated from a lowly position at mid-century to an exalted stature by the beginning of the 19th century. German artists were instrumental in modifying the appearance, status, and conception of landscape which secured its new importance. The changes which occurred in the pivotal years between c.1770 and 1800 can be examined through the unique contribution of German artists active in Italy. Within this group, Jakob Philipp Hackert (1737-1807), Johann Christian Reinhart (1761-1847), and Joseph Anton Koch (1768-1839), are central. These artists were responsible for a subtle but fundamental "re-vision" not only of the 17th century traditions represented primarily by Claude, Nicolas Poussin, Dughet, Rosa, Bril, Berchem, Ruisdael, and Everdingen, but equally of the Italian landscape itself.

The concept of "re-vision" entails both continuity and change. Continuity is maintained by the necessary return or reference to what has gone before, to the tradition. Particular elements within a tradition -- Claude's paintings for example -- are the resources available to an artist, his norms and authorities. The very possibility of historical change is based upon this reference to tradition. Whether an artist seeks to emulate, reject, or even ignore his antecedents, they remain as his starting point. But just as continuity is assured by this unavoidable taking up of the past -- an activity which is built into the English language by the prefix "re" -- genuine change is also guaranteed. A temporal

distance separates an artist and his tradition, and underlies the more interesting differences which will also exist and be manifest in variations between works of art. Since historical coordinates and contexts change through time, it is theoretically impossible for two works of art to be literally identical. Change and continuity refer to and depend upon one another in a dynamic but cyclical manner. The notion of revision contains this relationship and is a model of historical change in general; it seems to me that it is particularly applicable to the history of art, where the tradition of antecedents is the concern of both scholars and artists.

German artists in Italy during the late 18th century were highly conscious of their relation to a tradition. Winckelmann's writings gave Greek art a history and made explicit modern artists' competitive stance towards that which was asserted to be their heritage. Landscape artists wanted to be in the presence of the works of their 17th century mentors, to be the equals of these painters, and to raise the importance of landscape to that of history painting. And they received encouragement from Winckelmann, who stated in his Reflections on the Painting and Sculpture of the Greeks,¹ that landscape was the only genre in which the moderns superceded the ancients. Salomom Gessner, Christian Ludwig von Hagedorn, and Johann Sulzer promoted this new role for landscape in their writings. The 17th century landscapes were the explicit measure, but they were not to be merely copied. More than the notion of the artist as genius is on the ascendent when in 1802 Carl Ludwig Fernow says of his friend Christian Reinhart that "He is original in his

invention; he has studied the work of the greatest masters of his speciality, of Poussin, Claude, and Ruisdahl, but without imitating." ["Er ist originell in seiner Erfindung; er hat die Werke der größten Meister in seinem Fache, der Poussins, des Claude, und Ruisdahl studiert, aber ohne nachzunahmen."]² A second and equally strong authority emerges in the late 18th century: the call for the direct observation of the landscape itself. "Nature" and "Art" have been contrasted and appealed to as authorities throughout the history of art. Works of art have always been claimed to be close to "nature" in some sense, though the understanding of "nature" has constantly changed. An important strain in the late 18th century understanding of this elusive term came from the contemporary natural sciences. In this area nature was not an ideal, as Reynolds, Mengs, and others contested, it was concrete, self-generating, and often quite external to both God and Man. The contact that artists had with natural science was a major impetus for their revision of 17th century landscapes. New interest in the natural, as it was then understood, was manifested in a greater concern with the "particularity" of a landscape, in topographical accuracy and variety, and in a more exact rendering of natural details.

The emphasis on seeing inherent in the term revision applies to both aspects of authority invoked by German painters in the late 18th century, to the art from which they wanted to work, and to the Italian landscape which they observed closely. These artists responded to both sources simultaneously in their best works to create a unique and monumental style of landscape depiction. Nature and the landscape tradition were not often in conflict, but were both integral

to the conception and creation of landscape art at this time because of the growing attention to nature. An incident in Goethe's Italienische Reise, for example, indicates the complexity of Hackert's reliance on these two authorities. When they visited the Colonna Gallery in Rome together and looked at paintings by Poussin, Claude, and Rosa, Goethe and Hackert concluded that "what one needs to do is to look at them and then immediately look at Nature to learn what they saw in her and in one way or another imitated; then the mind is cleared of misconceptions, and in the end one arrives at a true vision of the relation of Nature and Art."³ Yet in his own writings Hackert repeatedly cites "nature" as the inspiration and measure of art. In his Ueber Landschaftsmalerei: Theoretische Fragmente, written in 1797 and published by Goethe in 1811 (that is, after Hackert's death), Hackert warns against dependence upon the masters he has just praised: "from copying [17th century landscape paintings the artist] certainly learns the mechanism of the hand, but he understands no drawing when he doesn't know nature." [" . . . bei dem Copieren lernt er zwar den Mechanismus der Hand, aber er versteht keine Zeichnung, wenn er die Natur nicht kennt."]⁴

It is the purpose of this thesis to articulate the characteristics of the German revision of 17th century landscape and to elaborate reasons for these changes. Three sections are required. In the first, I will describe basic differences between landscapes from these two periods beginning with a comparison of the cascades at Tivoli, and moving to a discussion of new landscape sites explored by German artists. The second section deals first with the relationship between natural science and landscape art from c.1770 to 1800 by

considering writings by Herder, Kant, and Goethe. In this section I will also discuss theoretical works on art which affected the conception and depiction of landscape. Writings by Gessner, Sulzer, Kant, Goethe, and Fernow often illuminate the relations between landscape and the natural sciences. The final section provides an analysis of important trends in late 18th century German-Italian landscape in terms of the revision of models, and is based upon the investigations of natural science and art theory. In a Coda, I will conclude with suggestions regarding the connection of these trends with the early 19th century German landscape painting of C.G. Carus and C.D. Friedrich.

It remains to be said why the years from approximately 1770 to 1800 have been chosen, and how works of art and texts have been selected and organized within the sections outlined above. The date 1770 marks the beginning of the German revision of the landscape genre in Italy. Philipp Hackert came to Rome in 1768 with his younger brother Johann Gottlieb, and with his appointment as court painter in Naples in March, 1786, officially rose to the stature in his genre that had been held by Joseph Vernet until his departure from Italy in 1753. Some of the most important art theory pertaining to landscape in the 18th century was written in the 1770's. Johann Sulzer's Allgemeine Theorie der Schönen Künste appeared in 1771, and Salomon Gessner's Briefe über die Landschaftsmalerey an Herrn Füßlin in 1770. Two earlier works were amongst those which gained further recognition with the new interest in landscape: Albrecht von Haller's poem Die Alpen (1729), and Christian Ludwig von Hagedorn's Betrachtungen über die Malerey (1762). The main focus of this thesis will include the 1790's, a decade

of great activity in landscape depiction and theory, as well as in the natural sciences. Goethe's early writings on science come from this period, as does Kant's Kritik der Urteilskraft (1790). By 1800, Reinhart and Koch had established their "heroic" landscape style, which may be considered the apex of three decades' interest in landscape painting and, in some ways, the preparation for the centrality of landscape in Romantic painting. The terminus ad quem of 1800 must be both definite and flexible. In order to give much-needed attention to the decades before 1800, the relation of these years to "Romanticism" can only be discussed briefly. At the same time, it is necessary to follow trends in the work of Reinhart and Koch, established in the 1780's and '90's, yet which inform important paintings up to c.1825. Again, writings by Carl Ludwig Fernow and Philipp Hackert in the first decade of the 19th century are in part retrospective, directly applicable to the period before 1800. The thematic character of this study governs the time span selected and the artists and writings to be examined. A new understanding of German landscape c.1800 arises from a consideration of the relations of artistic depiction, art theory, and natural science, but an historical cross section of the period must be secondary, in this context, to insights connected with the notion of revision. The artists, works, and theoretical texts investigated are representative of important trends during the late 18th century. Their diversity allows for a richness of understanding not available through an exhaustive survey of German landscape in Italy.

Introduction

Footnotes

1 Trans. H. Fuseli (London, 1765), p.55.

2 Inge Feuchtmayr, Johann Christian Reinhart 1761-1847, Materialien zur Kunst des 19. Jahrhunderts, Band 15 (München: Prestel-Verlag, 1975), p.124. Subsequent references appear as (Feuchtmayr,). In the author's catalogue, "G" refers to paintings, "A" to engravings, and "Z" to drawings.

Translations are my own, unless otherwise cited.

3 W.H. Auden and Elizabeth Mayer, trans., J.W. Goethe: Italian Journey (1786-1788), (Italy: Pantheon Books, 1962), p.343.

4 Karl Goedeke, ed., Goethes Werke (Stuttgart: J.G. Cotta'schen, 1866), Bd.26, p.209. Subsequent references appear as (Fragmente,).

SECTION I

THE "PARTICULARITY" OF LATE 18TH CENTURY GERMAN LANDSCAPE

"Particularity" in this context refers to the individual elements of the natural landscape -- atmospheric phenomena, animate and inanimate objects, topographical detail -- to their careful study and imitation, and to the clarity and detail common to many late 18th century German-Italian landscapes which is a result of this attention.¹ The term "particular" is used by many European artists at this time to refer to such natural details. It is not an explicit theoretical concept like that of the "sublime", but does, I submit, figure in the conception and practice of landscape depiction in the late 18th century. English and French pronouncements on the detail of the natural world are usually negative. For Reynolds, the whole point of fine art consists ". . . in being able to get above all singular forms, local customs, particulars, and details of every kind."² In his New Method of Assisting the Invention in Drawing Original Compositions of Landscape, Alexander Cozens describes how he puts the "particulars" into his compositions only after he has established the more important general lines of the landscape.³ In spite of his own studies of clouds, Pierre Henri de Valenciennes criticizes those artists "who attach themselves to details."⁴ But many German artists and theorists had a more positive response to particulars. As I will show in Section II, their reaction to contemporary natural philosophy often consists of a literal preoccupation with the workings of the earth and its biological makeup, which resulted in exact

or particular renderings of natural phenomena. In this response to the natural sciences the Germans differ -- on the whole -- from the British and French, who were more concerned in general with atmospheric phenomena. What I propose to consider under the concept of particularity is not scientific illustration, but rather the German artists' special relation to natural history and nature, a relation which they made very much a part of the fine arts, and which must therefore also be considered with reference to the 17th century Italianate landscape tradition to which these painters felt they belonged. The particularity of many works by Hackert, Reinhart, Koch, and others is their greatest single difference from 17th century models. Particularity informs studies and finished pieces, even those which are explicitly ideal in conception and execution.⁵ The truth of the whole -- the "correct" [richtig] imitation of nature, as Hackert calls it -- not the depiction of minutia, is the aim of these artists. Hackert asserts that "one must not search for truth in details." ["Man muß die Wahrheit nicht im Detail suchen."] (Fragmente, p.213). To achieve "das schöne Ideal", the artist must choose a beautiful aspect of nature, and even then leave much out. Yet while it is the totality, the whole that is the object of imitation, the observation and correct rendering of nature's particularity is more and more the way to the goal. This fine balance and interdependence of particular and universal is expressed by Hackert alongside his other precepts: "The many minutia . . . , which are not allowed representation in his space, [the artist] must omit, but so unnoticeably, that the truth would not be altered" ["Die vielen Kleinigkeiten . . . , die sein Raum nicht erlaubt darzustellen, muß

er [the artist] weglassen, aber so unvermerkt, das die Wahrheit nicht alterirt werde."]⁶

The comparison of 17th century Italian landscapes and those by Germans in Italy in the following century, essential to an understanding of the revision that took place, can best be established in two phases.⁷ Each comprises a chapter. The cascades at Tivoli was one of the most often-painted sites in the comparatively limited 17th century Italianate landscape repertoire. Friedrich Noack states that before the German painters of the late 18th century, Tivoli was almost the only significant landscape site in Italy.⁸ Its importance was widely recognized in the 18th century. Joseph Addison, for example, noted in his Remarks on the several Parts of Italy (1705) that artists "often come from Rome to study this landscape."⁹ The painter Jonathan Skeleton recorded the significance of Tivoli more vividly: "This antient city of Tivole I planly see has been ye only school where our two most celebrated Landscape Painters Claude and Gasper studied. They have both taken their Manners of Painting from hence."¹⁰ Tivoli was the proving ground for landscapists who saw themselves in the classical tradition -- as the German 18th century painters did -- and is thus the ideal locus for the comparison of 17th and 18th century landscape vision. I will argue that the 18th century German depictions of this site illustrate an increased interest in particularity. The locale depicted changes away from the traditional as a direct result of interest in landscape. The discovery and aesthetic appreciation of new sites is explored in Chapter 2.

CHAPTER 1: The "Only School" of Landscape: The Cascades
at Tivoli

Several divisions govern my comparison of versions of Tivoli. It is important when considering the modification of models to know what works were seen by the German artists. References to specific works are, however, uncommon. A larger number of 17th century Italianate landscapes could have been seen by the German artists, either in the original or in engravings.¹² A final designation is that of works which can, in retrospect, be considered as anticipations of the 18th century landscapes, and therefore employed in a critical understanding. I have also chosen examples in these last two groups because, taken together, they typify the compositional and thematic tendencies of 17th century Italianate landscape. The German landscapes are compared with their antecedents in terms of composition (the arrangement of the subject on the picture surface; emphases resulting from the arrangement)¹¹, the depiction of inanimate and animate elements (vegetation, staffage, natural formations), and atmosphere (in the meteorological sense, that is the qualities noted; singular effects). These distinctions would apply to an analysis of any landscape paintings, by they are specially relevant to my emphasis on the German painters' concentration on nature's particularity. The methodological separation of composition from the components of which it is made also calls into question the relation between "study" and "completed work" in both 17th and 18th century landscape depiction (to which I will return in this chapter).

Important paintings by Claude Lorrain and Gaspard Dughet

were definitely seen by Hackert, and probably by most landscape artists visiting Rome. Dughet's distant view of Tivoli now in the London National Gallery (Fig.1)¹³ was in the Palazzo Colonna by 1783, and is probably one of the paintings referred to by Goethe in the passage cited above (p.4). A very different sort of view by Dughet was in the Palazzo Pamphili in Rome at the same time. The Stream (Fig.2) is a close view of a waterfall and of water rushing over rocks.¹⁴ It very likely comes from the Tivoli area. Claude's Marriage of Isaac and Rebecca (Fig.3), now in the London National Gallery, also hung in the Palazzo Pamphili in the late 18th century. The large waterfall in the left distance is not Tivoli, but can be seen as a type or model of waterfall imitated by German artists. The Landscape with Waterfall (Fig.4) by Jan Frans van Bloemen (1662-1742)¹⁵ presents an inclusive view of the cascades at Tivoli repeated by Hackert, who would have seen the painting in the Pamphili.

Works which could have been seen by German artists, but which they do not mention, fill out the two broad categories just mentioned, the inclusive and close view. Dughet's View of Tivoli (Fig.5) was purchased in Italy in 1781 by Mr. Humphrey Morie. The composition is dominated by what seems to be a close view of the so called Neptune Grotto, but shows the round Temple of the Sybil above, as well as other buildings in the right background. This painting was commented upon by the English artist Thomas Jones (see French, p.18), and likely studied by his German contemporaries. Numerous small roundels by Dughet also feature the cascades at Tivoli with the architecture of the site forming the background (Fig.6). It is also possible that German artists would have worked from

engravings after Dughet. Anne French notes that J.G. Hackert used an engraving by John Boydell after Dughet entitled The Cascade (1785) (Fig.7), though it is not made clear whether Hackert knew this example in Italy or England, where he died in 1772. (The Cascade was first engraved in 1741: French, cat.54.) Another 17th century work to which German versions come very close is the Waterfalls at Tivoli (c.1620) by Cornelius van Poelenburg, now in the Alte Pinakothek, Munich (Fig.8). I have been unable to trace the 18th century location of this work, but on stylistic grounds alone it appears to lie behind Hackert's 1785 and 1792 views of Tivoli, discussed below. Both exemplify the inclusive view of the cascades as opposed to a study of one section, as with the Dughets mentioned directly above.

Another large group of works can, in retrospect, be seen to anticipate the late 18th century German depictions of Tivoli, even though it is unlikely that any direct influence took place. Drawings make up the majority of this final division in the relationship between models and revisions of Tivoli. They introduce studies of particular natural elements, important as a category to both 17th and 18th century landscape artists. Pages from Claude's so-called "Tivoli Book" anticipate the interest in grottos, streams, rock formations, and similar details found in the studies and finished works of the German artists (Fig.9). Dughet's drawing The Stream already mentioned is very close to Claude (as French has noted), and was accessible in the Palazzo Pamphili. A 1606 study from Tivoli by Paul Bril (Fig.10)¹⁶ prefigures an interest in natural rock configurations and the dramatic effects of waterfalls frequently found in 18th century German landscapes.

Though none of these drawings can be said with certitude to have been seen by German artists, their reputation was great. Claude was known to have drawn and even painted in oils after nature, and the same was said of Dughet and even Salvator Rosa.¹⁷ This legacy of artistic practice encouraged the German artists to work directly from nature. While landscapists in both centuries often depicted highly specific natural phenomena, the accurate visual representation of detail is much more evident in German 18th century landscape than ever before. Paintings by Claude and his contemporaries show a relatively limited flexibility in the delineation of vegetation, for example (see my elaboration in Chapter 6, p.189). Detailed studies of individual forms were made in both centuries as the basis for finished paintings -- this is standard academic practice. But as I shall show in the following chapters, the German artists kept much more of this particularity in their oils, and frequently seemed to consider detailed drawings as fully realized works (see my discussions of Hackert and Reinhart in Chapter 6).

The particularity of the German landscapes appears immediately upon comparison with the Italian depictions of Tivoli on the one hand, and, though this is not the focus of my discussion, those by their British and French contemporaries on the other. Even in what I call inclusive views -- those which take in an extended scene and which therefore cannot focus upon individual landscape elements or effects to as great an extent as can closer views -- emphasize the particularity of their subject. Philipp Hackert's Wässerfalle bei Tivoli of 1785 (Fig.11) is a case in point. Its composition, animate and inanimate details, and rendering of atmospheric phenomena

all contribute to the tendency to bring the observer into immediate contact with the detail of the scene and the force of the central motif.

The careful, strong composition of this landscape emphasizes both the viewer's physical proximity and the artist's understanding of the landscape's construction, whether or not such a structure is actually observable on location. Even more, the formal aspects of the painting serve to focus our attention on the central natural element, the cascade. The essential structure is of intersecting verticals and horizontals with one bold diagonal in the bottom left of the picture. Horizontals, piled on one another like steps, are formed by the precipices over which the water falls. These lines are echoed and re-enforced by those of the backs of the cattle standing at the bottom right. Verticals are established by the fall itself, by rock edges and shadows on rock faces, by large and small trees, and by the buildings at the top of the picture surface. The major diagonal at the left created by the gorge and indicating a second focal point in the small cascades further back on the left, is met by another diagonal line suggested by the river bank which runs from the right to centre in the foreground. These lines are doubled by the attitude of the dark bull standing in the centre and that of the artist leaning against the large tree respectively. This strong pattern provides, as it were, the course for the waterfall, and draws our attention to it. This formal system is aided by a conventional alteration of tonal bands, both horizontal and vertical. Even the diagonal axis is emphasized by light where the water in the gorge is crossed by shadow. Finally, the immediacy of the waterfall is guaranteed by the low view-

point. Though we are aware that the entire hillside is angled diagonally away from us as viewers, the closest fall has the effect of full frontality. The choice of a low, close point of view and the resulting lack of sky was noted by Thomas Jones as a characteristic of Dughet's work, particularly the View of Tivoli mentioned above (p.12. See French, p.18). A drawing from Claude's Tivoli Book takes the same viewpoint as Hackert's painting. (See Marcel Röthlisberger, Claude Lorrain: The Drawings [Berkeley: Univ. of Cal. Press, 1968], #438, Röthlisberger notes that this viewpoint was anticipated by Paul Bril.) This procedure was developed by German artists. Vegetation and rock forms are used in their compositions to underscore structure, as indicated. The large tree in Hackert's 1785 Tivoli, for example, stresses the vertical while forming a traditional coulisse. Atmospheric effects are noted in detail, and indicate once more the concern for the particular effects of the Tivoli cascades. The light source beyond the lower left of the picture surface (established by the angle of the cattle's shadows), shines directly on the falling water. Hackert frequently shows the effects of light on water vapour, as he does here at the base of the falls. (See also the 1792 Villa d'Este in Tivoli (Fig.12), and the sepia versions of the waterfall at Isola di Sora (Figs. 21,22) discussed in the following chapter).

The augmentation of interest in natural phenomena from the 17th century Italianate to the late 18th century German-Italianate landscape is evident even when we compare a somewhat stiff composition such as Hackert's 1785 Tivoli with a view of Tivoli which he would have seen, Jan Frans van Bloemen's Landscape with Waterfall (Fig.4). The viewpoint here is even

more extensive than in the Hackert. The natural steps over which the water tumbles are highlighted in the earlier painting both by the receding horizontal lines of the cliffs and the chiaroscuro bands. But the observer is not brought into close contact with the falls by an emphasis on its structure, its frontality, or by the effects of light on it. In van Bloemen's painting the source of illumination is high and to the right. It lights the valley wall opposite the falls, and draws the eye into the vastness of the landscape through aerial perspective. In no way is the particularity of the falls underscored, even though the observer can be judged to be approximately the same distance from it as in Hackert's 1792 Villa d'Este (Fig.12). In the 1785 Hackert, the magnitude of the cascade is observable because of our frontal relation to it, and the play of light on the mist around the falls is unmistakable. Natural detail is carefully studied in all these paintings. But in the van Bloemen, its use is decorative, that is, pleasing to the eye in its effects or associations and incorporated for this reason alone. The term "decorative" is not used here in a pejorative sense. Many of Hackert's particulars in the 1785 painting are decorative: the pattern in the rocks echoed by that in the falling water in the right section of the nearest cascade, for example. Hackert's particulars often go beyond decoration, however, and draw our attention to the appearance of light on water vapour or to the structure of a waterfall in a way which 17th century landscapes do not.

The Wasserfälle bei Tivoli by Cornelius van Poelenburg (Fig.8) anticipates Hackert's 1785 version in several ways, yet exemplifies again the contrast between a decorative and

particular reference to natural detail. The low viewpoint and virtually frontal presentation of Poelenburg's work, the delineation of the hillside through the use of light and dark, the direct illumination of the falls, and the closely observed foreground vegetation all bring the observer into the presence of the cascades at Tivoli. But a central detail suggests Poelenburg's propensity for the decorative. The spraying section of the waterfall depicted in the very centre of this composition is typical of the decorative or ornamental use of natural detail found in many 17th and 18th century landscapes.¹⁸ Poelenburg gives a stoöck rendition of the bead-like quality of a small stream of falling water. In his 1785 Tivoli, Hackert illuminates the atmospheric phenomenon of light on mist. One is not necessarily more "natural" than the other; both can be observed. The change is one of usage, that is, Hackert's prime objective is to render this phenomenon naturalistically. This change is characteristic, and is developed much farther by the German painters in their exploration of the Italian landscape. It is the difference of particularity.

Johann Martin von Rohden (1778-1868)¹⁹ painted a view of the Tivoli cascades which continues the trends found in Hackert's 1785 version. Die Wasserfälle bei Tivoli (c.1800; Fig.13) shows a section of the cascades against the background of the distant valley. Given the pointed rocks at the base of the waterfall, and the perpendicular cliff face to their left, von Rohden's subject must be the same as Hackert's, though taken from a different point of view. Both paintings have the effect of bringing the observer into contact with the falls, even though they indicate the great scope of the

surrounding landscape and are therefore inclusive views by my definition. The falls itself is framed by the tree in the right foreground and the cliff opposite, and by the vertical edge of the same gorge depicted by Hackert. But to a greater extent than in any other view of Tivoli, the falls is accented by light. The beacon-like shaft on its upper segment acts as a horizontal frame for the cascade, and as the agent that both creates and explores the effects of the fall's spray.

Joseph Anton Koch's 1818 Wasserfälle bei Tivoli (Fig.14) is a distant view of the numerous falls and the city, taken from a vantage point at the same elevation as the town of Tivoli. As such, it bears loose comparison with Dughet's version (Fig.1). The composition of Koch's painting is similar to that of van Bloemen's, even though the viewpoint in the former is higher and situated at the opposite side of the cascades, thus reversing the image as seen on Koch's canvas. Both pictures employ foreground figures as repoussoir elements, leading the eye to the cascades and surrounding panorama. But here again, similarities coexist with innovations. In Koch's version, as in all those 18th century examples examined, the observer's angle of sight towards the falls is never as oblique as in van Bloemen's. The frontal force of the water is always made immediate by the choice of viewpoint and composition of the German works. Koch's painting demonstrates that this observation holds no matter how great the distance of the cascades. The tendency is to bring the observer close, whether literally or metaphorically, by making the effects of a natural phenomenon proximate. The exploration of atmospheric effects serves the same purpose. The beam of light focused on the closest cascade in Koch's

version is virtually identical to that in von Rohden's painting²⁰, and focuses our attention on the falls and on the mist rising from it.

Eighteenth-century German depictions of Tivoli usually indicate the particularity of their subject in some sense, demonstrating its interest as a natural phenomenon. Even what I call inclusive views, those considered so far, move away from narrative content and the unspecific recording of natural events evident in paintings such as Claude's Marriage of Isaac and Rebecca. These paintings tend toward the "close" view mentioned above (p.12), which again has 17th century Italianate precedents to serve as models for revision. The characteristics of particularity already examined instigate and guide changes. Dughet's View of Tivoli (Fig.5) can be seen as a model for two important German paintings: Johann Christian Reinhart's Blick auf Tivoli of 1813 (Fig.15)²¹ and Die Neptungrotte in Tivoli mit dem Fall des Anio, 1818, by Joseph Anton Koch (Fig.16). All three very likely show the Neptune Grotto, and thus demonstrate a localized interest within the Tivoli theme. Both German paintings underscore this aspect of particularization by formal means. The viewpoint is so low that we can only look into what little sky there is, rather than over an expansive vista such as that provided on the right in Dughet's version. The vertical format of both the Reinhart and Koch -- much less common in 17th century landscapes -- also serves to block out the distance and thus to emphasize the frontal force of the cliffs and waterfall in the Neptune Grotto. This pictorial structure is a touchstone of the 18th century close view. It focuses attention on particular phenomena even more than the German

inclusive view could, given their openness to the extension of the landscape (see Figs.11,13,14). Poelenburg's Wasserfälle bei Tivoli (Fig.8) is perhaps the only 17th century example to present Tivoli's cascades in this direct, frontal manner, to bring the particular nature of this phenomenon to our attention without providing views of secondary interest. But this powerful arrangement is not complimented by the illumination of other aspects of particularity found in Hackert, Koch, and Reinhart. Dughet's roundels showing Tivoli effectively draw the eye to their theme, the cascades, through a "V" formed by the falling water (Fig.6). But here too, the vista opened up behind the falls lessens the immediacy of their effect. This is, of course, not a fault but a difference of emphasis.

Reinhart especially closes off the pictorial distance through formal expedients in his views of Tivoli. He combines a low viewpoint with man-made structures to focus the composition and to stress the central motif. In each case this motif is what I have called a particular of nature. His drawing entitled Villa Mecenate, Tivoli of 1792-93 (Fig.17) uses an aquaduct to frame a closely drawn study of a waterfall. A bridge performs the same function in the 1813 painting Tivoli, Brücke bei San Rocco mit Wasserfall (Fig.18)²². Here we do have two distinct spaces, divided by the bridge. Both are made immediate by the low viewpoint. The closer area is a study of rocks and vegetation, the more distant of a cascade. Both spaces are closed by architecture.

I mentioned above (p.14) that such late 18th century German landscapes are also more particular than those executed by their British and French counterparts working in Rome.

The Germans actually had a (bad) reputation for studying the minutia of nature (this is vividly demonstrated by the Welsh landscapist Thomas Jones. See chapter 3, below). Jonathan Skelton's view of Tivoli (Fig.19) is much less detailed in its depiction of natural phenomena than those made in the same region by Hackert, Reinhart, or Koch. The increasingly frequent practice of oil painting out-of-doors²³ indicates a concern on the part of all national groups in Italy for the direct experience and rendering of natural phenomena. But plein-air works by Wilson²⁴ or Valenciennes (with the notable exception of his cloud studies) are not particular in the way I have described. Studies of individual elements in the landscape became finished, autonomous artworks for the German artists in a way rarely, if ever, true for their 17th century predecessors, and uncommon amongst their contemporaries. Reinhart's numerous depictions of isolated vegetation, rock formations, and atmospheric phenomena, for example -- many of them engraved, suggesting a market for their production -- point to an unprecedented emphasis upon and detailed representation of the particulars of nature which is not explicable by the status of any such drawing as a potential model for development (Fig.20). It is this emphasis which constitutes the fundamental revision of the 17th century landscape at Tivoli.

Studies of individual elements are usually found in travel sketchbooks. Tivoli was the site most often represented in the 17th century, but its relative importance diminished as the exploration of Italy increased. My brief consideration of these studies, then, points away from Tivoli towards another pronounced aspect of particularity: the depiction of new

landscape sites.

Section I - Chapter 1

Footnotes

1 In her article "Toward Romantic Landscape Perception: Illustrated Travels and the Rise of "Singularity" as an Aesthetic Category" (Art Quarterly, I, I, 1977, pp. 89-117), B.M. Stafford traces the "development that led to the visual apprehension of natural objects as lone and strikingly distinct" (89). The notion of particularity that I put forward here is complementary to but slightly different from that of "singularity". There can be many reasons for an interest in a given natural phenomenon, including a concern for "singularity" engendered, for example, by the judgment that the phenomenon is sublime (and Professor Stafford considers other possibilities). The idea of particularity is another such impetus. It calls attention to the interest in the detail of an object, occasioned by the artists' and viewers' familiarity with natural history, but not necessarily to that objects's "striking" qualities or its distinctness. Objects would be singled out in both cases, however, and the notion of the sublime and the impetus of natural history could overlap or combine in some cases. I do not wish to exclude interests like that of "singularity" here, but rather to focus upon the effects of natural science on what I have called particularity in landscape perception and depiction.

2 Discourses on Art, Robert Wark, ed. (New Haven: Yale University Press, 1975), p. 44.

3 See A.P. Oppé's reprint of A. Cozens' text in Alexander and John Robert Cozens (London: Adam and Charles Black, 1952), p. 19.

4 Eléments de perspective pratique. . . (1800), cited in Paula Rea Radisich, "Eighteenth Century Landscape Theory and the Work of Pierre Henri de Valenciennes", (Diss., Univ. of California, L.A., 1977), p. 489.

5 The interest in nature in the overall work of Hackert, Reinhart, and Koch is evaluated quite differently by two eminent critics. Herbert von Einem considers the "naturalistische Richtung" as a development parallel to but largely separate from German landscape in Italy. (See H. von Einem, Deutsche Malerei des Klassizismus und der Romantik (Munchen: C.H. Beck, 1978), pp. 30-31; 66-67. In his book on Koch, Otto von Lutterotti frequently points to Koch's dependence upon observation, but does not claim that this observation is a formative aspect of the artist's mature landscape style.

6 A more complete discussion of these points is found in Section II. In his discussion of the proper way to draw trees and foliage, Hackert repeats that both detail and the effect of the whole must be achieved, always "without altering the truth of nature" ["ohne die Wahrheit der Natur zu alteriren" (Fragmente, p. 208)].

- 7 The role played by 17th century Netherlandish landscape is touched on in Section III, but a complete examination of its importance is beyond the scope of this project.
- 8 Deutsches Leben in Rom, 2nd.ed. (Bern: Herbert Lang, 1971), p.373, n.11.
- 9 Cited in Deborah Howard, "Some Eighteenth-Century English Followers of Claude" (Burlington Magazine, Dec.1969, 726-33), p.727.
- 10 Letter to William Herring, April 23, 1758. Cited in Brinsley Ford, ed., "The Letters of Jonathan Skelton Written from Rome and Tivoli in 1758" (The Walpole Society XXXVI, 1956-58, 23-82), p.42.
- 11 Locale is relatively unimportant in a comparison of one subject, but the viewpoint chosen does vary in significant ways.
- 12 Claude and Dughet paintings would have been seen in the original; works by Poussin almost entirely in prints (see Feuchtmayr, p.82). Individual forms and composition could be gleaned from either generic source, but it is significant that artists saw originals. Hackert, for example, was concerned enough with naturalistic colour to criticize Dughet on this score, and with the precise delineation of vegetation to criticize Claude's depictions of trees (see my discussion of Hackert in Chapter 6, p235).
- 13 See Anne French, Gaspard Dughet, Called Gaspard Poussin 1615-75, Exhibition Catalogue, The Iveagh Bequest, (Kenwood, 1980). Subsequent references to French's introduction and catalogue appear as (French,). For this painting, see cat.no.22.
- 14 I have shown the drawing upon which the oil is based. See French, cat.34.
- 15 van Bloemen, also known as "Orrizonte", was born in Antwerp. He came to Rome in 1688, and died in the city.
- 16 See Lisa Oehler, "Einige Frühe Naturstudien von Paul Bril" (Marburger Jahrbuch für Kunstwissenschaft Bd.16, 1955, 199-205).
- 17 Rosa's biographer Passeri stresses this practice, as do Swanevelt and Baldinucci with reference to Claude. See also Oil Sketches from Nature, Exh. cat., (London, Royal Academy, 1981).

18 Rocaille ornament, for example, takes its inspiration from natural forms, particularly the patterns found in the growth of plants and on rock faces. The sparkling effect of a falling spring was often observed in landscapes in the first half of the 18th century, and has a similar decorative function. Examples can be found in the works of Juste-Aurèle Meissonier (1675-1750), Jacques de la Joue (1687-1761), in the cycle of engravings by Johann Wolfgang Baumgartner (1712-61) entitled Erdrocaille (1795), for example, his Felslandschaft of the 1760's. Yvonne Boerlin-Brodbeck discusses this decorative use of natural phenomena in chapter one of her catalogue to the Basel Caspar Wolf exhibit (Kunstmuseum, 1980). J.A. Koch's early work repeats this use of the small waterfall. See, for example, Der Staubbach im Lauterbrunnental, 1791. Otto von Lutterotti, Joseph Anton Koch 1768-1839 (Berlin: Deutscher Verein Für Kunstwissenschaft, 1940), Abb.100.

19 von Rohden came to Rome in 1795 where he worked with Reinhart and Koch. He married into a Tivoli family in 1815, and often depicted the cascades and surroundings. The catalogue of the Staatlichen Kunsthalle, Karlsruhe (where the painting now is) suggests that this is a work from the artist's early period in Italy. (Deutsche Meister 1800-1850 Aus Der Staatliche Kunsthalle Karlsruhe, 1964, Cat.no.7). On this evidence, I have suggested a date of c.1800 for the painting. Lutterotti indicates that the painting might be later, given the similarity of von Rohden and Koch's versions of Tivoli (Lutterotti, p.90, and note 259 on that page).

20 See note 19. It is quite possible, though not crucial in this context, that Koch followed von Rohden.

21 A study for this painting dates from c.1800. (Feuchtmayr, Z316, Abb.63).

22 This image was depicted by many German artists: Albert Christoph Dies in a 1795 engraving (Feuchtmayr, Abb.66), J.A. Koch in 1820 (Lutterotti, Abb.228), Philipp Hackert (Feuchtmayr, Abb.67). The Tivoli drawing by Bril (Fig.10) isolates a particular natural phenomenon in the same manner. See my further discussion in relation to Fragonard's Les cascates de Tivoli, (Fig.50), Chapter 6, pp.198-99).

23 Philip Conisbee has traced the origins and development of 18th century plein-air painting in "Pre-Romantic Plein-Air Painting" (Art History, vol.2, no.4, Dec. 1979, 413-28). See also Paula Rea Radisich, "Eighteenth-Century Landscape Theory and the Work of Pierre Henri de Valenciennes" (Ph.D. Diss., Univ. California, L.A., 1977). Radisich notes that Hackert was one of the first to paint out-of-doors on a large scale, and that he may have encouraged Valenciennes to do the same (See p.313). (See also Paula Rea Radisich, "Eighteenth-Century Plein-Air Painting and the Sketches of Pierre Henri de Valenciennes", Art Bulletin, March 1982, pp.98-104.)

24 Conisbee discusses two oils by Wilson in which the artist is shown at work en plein-air, "Pre-Romantic Plein-Air . . .", p.425.

CHAPTER 2: New Vision - New Sites

In October of 1793, Philipp Hackert wrote the following to one of his most important patrons, Grafen Dönhof von Dönhofstadt: In the "spring I took a trip in Abruzzo Ultra, . . . which is [a] very interesting [area] . . . [and] Isola di Sora is a second Tivoli. Four miles from Isola alle Antrelle, where the Iri tumbles through rocks in a deep valley, [is] one of the most beautiful waterfalls which I have ever drawn. It was entirely unknown to art; I am the first to have drawn it in this century."¹ [" . . . Frühjahr mache ich eine Reise in Abruzzo Ultra, . . . welches sehr interresant ist. . . ist Isola di Sora ein zweytes Tivoli, und 4 Milen von Isola alle Antrelle, wo die Iri sich durch Felsen in ein tiefes Thal sturzet, eines der schönsten Wasserfälle, die ich jehmals gezeichnet habe, er war für die Kunst ganz unbekannt, ich bin der erste gewesen, der ihn in diesem Jahrhundert gezeichnet hat."] Hackert and many other German artists actively explored the Italian countryside during the latter decades of the 18th century. In this example, the discovery of a worthy subject drew the utmost praise from an artist sensitive to 17th century Italianate landscape, a comparison with Tivoli. Historians have often remarked that the great number of Grand Tourists created a demand for Errinerungsbilder of all types, and that their tastes and interests ~~depicted~~ ^{istated} both what was depicted and how the subject was rendered. Mount Vesuvius, for example, became a required stop in late 18th century travel itineraries.² This is certainly true; Hackert himself had more commissions than he could manage in the 1780's and '90's, especially from British and Russian Tourists who were acquainted

with his two great patrons in Naples, the King and Sir William Hamilton, the British envoy (see Chapter 3, p.70 for a fuller discussion of Hackert's popularity). New sites were also being added to the list of those that "must" be seen, partly stimulated by the developing vogue for the picturesque. Sicily, for example, had been all but ignored by travellers until 1770 when Baron J.H. von Riedesel conducted a largely archeological expedition, inspired by Winckelmann's writings. Riedesel published his Reise durch Sicilian und Großgriechenland in 1771.³ Hackert's own expedition to the island with Charles Gore and Richard Payne Knight in 1777 was, however, one of the first by a well-known artist, and constituted a rediscovery which was reflected in the itinerary of the Grand Tour and the range of possibilities open to the landscape artist.⁴ In general, travel literature during the latter 18th century became more concerned with the Italian landscape, elements of which became very like monuments of architecture, sculpture, and painting in the minds of travel writers.⁵ Goethe is too informed a visitor to be typical, but his Italienische Reise is the best example of the widespread observation of new landscapes with an eye for their aesthetic qualities. "I saw some limestone crags," he says, "which would make fine subjects for pictorial studies."⁶

The Grand Tour was, then, a major impetus for the production of visual memorabilia. The passion for travel may even have encouraged the artistic investigation of new areas. But exploration was also quite removed from the exigencies of popular taste. Discovery became a theoretical tenet for Hackert. The artist must always look for the new in nature: "It is to be wished that the artist could record all that

he finds in nature which is good and new." ["Es wäre wohl zu wünschen, daß der Künstler alles aufzeichnen könnte, was er Gutes und Neue in der Natur findet. . ." (Fragmente, p.209).] The exhilaration Hackert shows at being the first to depict the waterfall at Isola di Sora might be considered an expression of topical artistic "originality". But at best it complexifies this notion, and emphasizes the degree of independence that must be given to artistic exploration. The concept "originality" was combined with contemporary notions of genius. Both set the artist's sensibility and intuition against the systematic study required by the Academies and promoted, often with great subtlety, by Reynolds and other theorists. The original genius, as conceived by an artist like Blake, creates from his own experience, breaks with the past. The attitude of German artists towards new landscapes was quite different. They saw themselves in a positive relation to their predecessors, as the guardians of a tradition. Their keen sense of exploration was inspired and often guided by 17th century models, and, as I will argue more fully in Section II, by the natural sciences. Joseph Anton Koch was criticized by contemporaries for following Nicolas Poussin and Annibale Carracci too closely in the Aussicht von Subiaco gegen Rocca Canterano (now lost, but see Lutterotti, cat. no. 102, p.227), and St. George. Referring to the first painting, he responds: "I have rather taken ones like this from the contingencies of the atmosphere, after nature." ["Ich habe aber solche gänzlich mit den Zufälligkeiten der Witterung aus der Natur genommen" (Letter to Uexküll, 1805. Lutterotti, p.227).] Koch answers his accusers again by referring to his Schmadribachfall compositions: "Here no one can ever accuse me of imitating another master; [I] will

certainly be the only one who, with this individuality and vivacity, has presented this type of scene." ["Hier wird mir wohl niemand vorwerfen, daß ich irgendeinen Meister nachgeahmt habe; werde sicher der einzige sein, der mit dieser Individualität und Lebendigkeit diese Gattungsauftritte dargestellt hat" (Lutterotti, p.59)]. The artist feels beyond reproach because he has depicted something new even in terms of Alpine landscapes. Koch's first defense explains his second. He has always followed nature no matter how close he may have seemed to come to other masters. Hackert and Koch both claim originality in these passages, but this quality is opposed to the artistic tradition only when Koch is charged with copying. Artistic exploration, the attention to nature, was original, but it was not pursued primarily for this reason, just as new areas and phenomena were not investigated solely to provide illustrations of the Grand Tour.

Hackert executed three versions of the falls at Isola di Sora (now called "Isola del Liri") in 1793, two large sepias (83 x 63 cm.; Figs.21,22), and a slightly smaller oil (77 x 67 cm.; now lost; see Krönig, "Sepia Zeichnungen", 1971, Abb.143). The sepia "sketches" are of the large type recommended by Hackert and influential with fellow artists such as de Valenciennes. They were likely completed on the spot, and are, I think, two of the finest landscapes produced in the decades around 1800. All three works emphasize the various aspects of particularity considered in Chapter 1. Most important is the discovery of a "second Tivoli" itself. The immediacy of the compositions makes it clear that the site, the waterfall, is the theme of each work. Staffage is included, most notably

in conjunction with the mill in Fig.22, but it has no historical reference, nothing about it to distract from the landscape. Formal methods for isolating and stressing natural phenomena are similar to those considered in Chapter 1. In each version the pictorial space is closed at the top because of the low, close viewpoint. The observer is met with the immensity of the waterfall and surrounding cliffs. In Fig.21 (and in the oil version of it), the viewer is placed almost at right angles to the falls itself by the structure of Hackert's composition. In Fig.22, an onlooker must view the opposite rock face frontally even though he is beside the waterfall. Hackert's attention to the patterns and changing bulk of the falling water in Fig.21 (more exact and less decorative than in his 1785 Tivoli picture), and to the effect of the spray as it blurs the otherwise distinct rock face to the right of the falls, are prime examples of the interest in the particular. Hackert painted other famous waterfalls, most notably the Cascata della Marmore at Terni, but the enthusiasm for exploration brought him to motifs new to the 18th century in both location and type. The same can be said of Johann Christian Reinhart.⁷

Reinhart was known as a hunter and outdoors-man. Like most artists of his time, he made numerous sketching trips. The results of his close observations of nature show most remarkably in a series of engravings of the area around Rome entitled Mahlerische Radirte Prospective von Italien von Dies, Reinhart, und Mechau, 1792-98.⁸ Reinhart's contributions are amongst the most accomplished and inspired graphic works of the 18th and early 19th century. The surrounding presence of nature is conveyed through the abundance of vegetation

articulated equally in all parts of each composition by the unifying fineness of marks on the plate. This "self-generating graphic code"⁹ conveys a sense of nature's plenitude comparable to that found in the landscapes of Elsheimer and Hercules Seghers. Many of the prospects included in the collection were traditional; Mechau's Ponte Mollo (1792), for example, shows the bridge that is one of Claude's trademarks. But there were also new locales, such as Reinhart's A Subiaco (1792; Fig.23) where the hunter, it seems to me, is an allusion to the artist himself, exploring the landscape. The particularity of each site is augmented by a graphic texture which makes every part of the picture equally present¹⁰, and by Reinhart's focuses upon natural phenomena. The effects of strong light are explored in Vicino a Subiaco (1794; Fig.24), and a rainbow -- at once an atmospheric event and a symbol of an ideal past¹¹ -- is shown in Aricca (1793, Fig.25). In A Civita Castellana (1794; Fig.26), the rubric of closing off the composition discussed in Chapter 1 with regard to Reinhart's 1813 Tivoli view is again used to mark the immediacy of a natural formation, in this case a vertical rock wall enclosing a valley. Nature's changes are emphasized by changing light, and more subtly perhaps by the activities of various staffage figures. The woman standing in the foreground of Polazzuola (1792) holds a distaff, a symbol of the cycle of woolmaking. The fishermen of In Citiva Castellana (1795; Fig.27) suggest another cycle, the food chain.¹² All these landscapes are commemorative. The Nurnberg art dealer Frauenholz, who distributed the Prospecte, noted its purpose in an accompanying catalogue: "It was certainly desirable to see the pre-eminent examples of antiquity surviving in and around Rome, and the attractive

views and areas which the Roman Campagna boasts, conveyed together in one work, and represented with truth and artistic skill." ["Es war gewiss wünschenswerth, die Vorzüglichsten der in und um Rom befindlichen Ueberbleibsel aus dem Altertum, und die reizenden Aussichten und Partien, womit die römische Campagna prangt, in einem Weken zusammengetragen zu sehen, mit Wahrheit und Kunstfertigkeit dargestellt. (Feuchtmayer, p. 397)]. But at the same time, they represent new discoveries and the constant emphasis on particularity.

Many of Hackert's paintings were commissioned to record ruins, villas, or other monuments with contemporary or ancient associations. The Temple in Agrigent (1785), Villa Albani in Rom (1779), or the Villa d'Este in Tivoli (Fig.12), the so-called Trieb-Jagd auf dem Fusaro-See (1783) painted for the King of Naples, and the view Im Englischer Garten von Casserta (1800) commissioned by Queen Maria Carolina of Naples (with whom Hackert had been designing this garden since 1785)¹³, are only a few of the numerous examples. But Hackert was also interested in less conventional sites, and though as we shall see in the next chapter, his work was supported by Sir William Hamilton and Lord Bristol, this interest was quite separate from the requirements of Grand Tourists or the claims of originality.

The British Museum holds a pencil and sepia sketch from Hackert's 1777 Sicilian trip called Ohr des Dionysos (Fig.28). This peculiar cave-like formation near Syracuse was of more interest for its geological uniqueness than for its classical associations. A second study from inside the cave (Fig.29) suggests Hackert's fascination with such structures and indeed a widespread interest in natural history in general.¹⁴ Caves

appear frequently in late 18th century landscapes, most notably in the work of Hackert's Swiss contemporary Caspar Wolf (1735-83). Wolf continues the Netherlandish Mannerists' propensity for this motif, fusing his interest in geology with the iconography of the cave, its traditional mystery and association with hermits and saints (Fig.30). But for Wolf and other late 18th century landscape artists, the cave as the natural symbol of the unknown is extended by natural history to include a reference to the past, the earth's centre and a record of its change.¹⁵ It is surely no coincidence that caves are depicted much more frequently and exactly around 1800 than ever before. There are numerous examples: Hackert's exquisitely defined drawing Die Grotten im Acradina bei Syrakus (1790), the Eingang zur Baumanshöhle, about 1780, drawn by Pascha Johann Friedrich Weitsch (1723-1802), de Louthembourg's sketch for the "Wonders of Derbyshire", and Wright of Derby's Grotto with Julia.¹⁶ The cave as natural phenomenon also figures prominently in early 19th century German landscape. The Fingalshöhle of c.1844 (Fig.55) by Carl Gustav Carus (1789-1869) demonstrates the specifically geological interests of Carus' trip to Scotland, and is remarkably similar in this sense to Hackert's 1790 drawing from Syracuse mentioned above. Finally, Caspar David Friedrich's (1774-1840) numerous uses of the cave motif -- see especially his Skelette in der Tropfsteinhöhle (1834; Fig.58) -- suggests its continued importance in 19th century painting and possible connection with the earlier interest in particular natural phenomena discussed here. I will return to this point in the coda. For Wolf, Hackert, and many others, then, the cave is a touchstone for the exploration of natural phenomena, the particular as I have defined the term.

Hacket's depictions of volcanoes are, as a group, another shibboleth for the particular.

"Volcanic [rocks] have a wholly specific character, both in form and colour." ["Vulcanischen haben einem ganz besondern Charakter, sowohl in der Form als in der Farbe"] asserts Hackert in his fragment Ueber Landschaftsmalerei (Fragmente, p.211). His interest in volcanoes, their geological and aesthetic characteristics, was formed in Naples and Sicily. Payne Knight's description of the scene surveyed by himself, Gore, and Hackert after they had climbed Mount Etna in time for sunrise illustrates the co-mingling of scientific and aesthetic observation: "As the sun rose, the scene was gradually illuminated, the plains and mountains, lakes and rivers became steadily more distinct until they attained a certain stage of clarity, whereupon they faded, likewise by degrees, into the mists which the sun had drawn up."¹⁷ Knight's evocation of atmospheric effects is very like that performed in paint by Hackert on many occasions. The eruptions of volcanoes, especially Mount Vesuvius, had been frequently depicted. The inventory of Sir William Hamilton's considerable art collection at Naples lists "a collection of views of Vesuvius in eruption by [Pietro] Fabris and Hackert, and . . . many more volcanic and view paintings of Naples by Fabris and Hackert."¹⁸ The evidence of Hackert's other paintings and drawings of volcanoes would suggest that his interest in eruptions was again partly scientific, partly aesthetic. He would have witnessed the eruption of 1779, and possibly that of 1794. Hackert always avoided the bombast of, say, Wright of Derby's versions of the mountain erupting,¹⁹ and would have stayed closer to the detail

exemplified by an engraving from Jean Blaeu's Nouveau Théâtre d'Italie, III, 1704 (see Schudt, Abb. 19). But volcanic explosions were only the most obvious phenomena. Hackert and other German artists also studied craters. Hackert's 1788 Ansicht der Solfatara (Fig. 31) shows a large, dormant crater and its unique pattern of vegetation. This full-size oil (155x209cm.) combines a conventional use of coulisse trees on both sides of the picture surface with an exact rendering of a particular natural phenomenon. The detailed prospect found in the Ansicht vom Krater des Monte Nuovo bei Pozzuoli (c. 1775; Fig. 32) is as novel as the appearance of the mountain itself.²⁰

Close observation of nature is evident in all the German landscapes discussed so far in this chapter. As I have already mentioned regarding depictions of Tivoli, this tendency was -- on the whole -- stronger in German artists than in their British and French 18th century peers. I will consider in some detail in the next chapter the negative reactions of Thomas Jones to what he identified as the typically German proclivity for detail. John Robert Cozens also figures in this comparison. Two other important British artists of the time -- Wright of Derby and de Louthembourg -- show an increased interest in the details of natural phenomena. Wright often painted Vesuvius, for example, and de Louthembourg's Eidophusikon sought to reproduce natural effects faithfully (and dramatically), including Vesuvius in eruption. I would suggest in general that their interests in the scientific aspects of nature paralleled those of the German artists, but that their execution was less concerned with visual (as opposed to thematic) detail. Thus Wright of Derby will show us the theme

of Vesuvius erupting, while Hackert visualizes the detail of this occurrence (see Fig.38).

In the French School, works by Claude Joseph Vernet and Valenciennes can be seen to have significant interest in an accurate examination of nature. Vernet seemed "more realistic to eighteenth-century eyes"²¹ than did Claude, and this verisimilitude was perceived as a virtue -- by Diderot especially. Vernet depicted nature in greater variety than did the 17th century Italianate schools, and is also said to have made oil sketches from nature (Conisbee, p.7). Hackert copied Vernet marines, but the German artists' concern for individual natural phenomena and effects (like caves or mist) seems to me to be much more detailed and, in this sense, scientific than that of Vernet. The same overall comparison applies to Valenciennes, who turned ultimately to the grand aspects of nature in his "paysage historique" mode (see Radisich, "Eighteenth Century Landscape Theory . . .").

Observation is the theme of the German works, and is often announced by a descriptive, documentary title such as the one used for Fig.32. On the reverse of this piece comes an even fuller description, likely written by Hamilton: "View taken from the bottom of the Crater of Monte Nuovo, or the New Mountain, formed in 48 hours in the year 1538 near Puzzoli."²² A similar scientific bent is also typical of Goethe's Italienische Reise. A final paradigm of observation is the demeanour of staffage figures in these German landscapes. Just as these artists have manoevered the viewers of their pieces into frontal or otherwise immediate relation with various particulars through formal means, they have disposed figures in the landscape in a manner which includes the "external"

observer in the same project of observation engaging these "internal" observers. One or more foreground figures are often facing into the picture space, and thereby encouraging us to look past them. In Fig.32 this method is coupled with the inclusion of a figure further into the picture space who is clearly surveying the natural phenomena, perhaps even in a technical sense. We, as outsiders, are invited to share in his exploration, to note the details he sees. The artist himself is frequently rendered as an observer, indeed as a natural scientist. In Hackert's Solfatara (Fig.31) we take up the artist's attitude because the figure's back is turned towards us, duplicating the position held when looking into the landscape. Reinhart's engraving A Subiaco (1793; Feuchtmayr, A59) shows a fisherman pointing out a natural phenomenon to an artist. All these staffage figures do more than create narrative interest, decorate the landscape, or set its scale as they would have done earlier in the 18th century and in all antecedent landscape art. They make manifest the theme of natural observation. Perhaps the finest single example of the artist as natural scientist -- and hence of the explorative role of the external observer -- is Caspar Wolf's Das Innere der Bärenhöhle bei Welschemrohr (1778; Fig.33). Here we face the artist, but he is absorbed in recording the interior of the cave. This small painting (42.3x34.5cm.) embodies the themes of exploration, observation, and vision central to late 18th century German landscape depiction. Figures with their backs towards us as observers of the painting become common in the late 18th century German landscape painting. Weitsch's Bodetal mit Roßtrappe (1769, Fig.34) is the earliest example I know. Here the observers on the near edge of an

impressive gorge lead our eyes to the tiny but distant figures standing above the exposed rockface on the other side of the valley. This natural phenomenon becomes the focal point of the painting. Another example is J.W. Mechau's engraving Bei Subiaco (1793; from the Malerisch Radirte Ansichten).

Scientific landscapes by Pietro Fabris, on which I focus in the next chapter, are excellent examples of exploration and observation in the landscape.

To what extent is particularity, the rendering of new sites and the effect of nature within these motifs, based upon 17th century Italianate models? What is conventional, and ultimately, what is the balance between revision and exploration? The initial inspiration to study the Italian landscape came to the German painters from their 17th century mentors. Reinhart learned a great deal about the depiction of stormy landscapes, for example, from paintings by Dughet in the Palazzo Colonna, the Storm: Elijah and the Angel and the large interior landscape cycle. Rosa too, was an antecedent for this agitated sort of landscape (though he never painted actual storms). The controlled, balanced structure of compositions by both Reinhart and Hackert relies on the example of Claude's Liber Veritatis and oils. Koch's debt to Nicolas Poussin in this aspect of composition is unmistakable. The tonal gradations, bands of light and dark, coulisse and repoussoir elements which characterize the compositional systems of Claude and Duget were used by all German artists, and especially by Hackert. In his less inspired work -- and, as critics have observed, there is a substantial number of paintings in this category -- Hackert uses these elements as a formula, as a conventional and undistinguished

generator of landscapes. But the proper character of revision stems from the new aspects of landscape vision which modify the conventions of tradition.

The combination of detailed exploration and exact artistic rendering of new sites and their phenomena is the innovation of late 18th century German landscape, and must certainly be stressed over the conventional aspects of the artists' work. The impetus for observation cannot be adequately explained by the requirements of the Grand Tour or the examples of 17th century landscapes alone. Painters' interests in natural science provided another substantial impetus for landscape art, for the inclusion of the particularity of nature described in this section. It is the English scientist, collector, and patron Sir William Hamilton who precipitates the combination of close scientific observation and precise pictorial rendering in landscape art. His erudite study of volcanology entitled Campi Phlegraei (1776) was illustrated by the Neopolitan-British artist Pietro Fabris. Hackert was also closely associated with Hamilton. In the balance of this section, then, I will consider Hamilton's important publication in detail as a paradigm of the comingled scientific and aesthetic concerns which inform my notion of particularity, and whose theoretical bases are examined more thoroughly in Section II.

Chapter 2

Footnotes

1 Cited in Wolfgang Krönig, "Sepia-Zeichnungen aus der Umgebung Neapals von Philipp Hackert" (Wallraf-Richartz-Jahrbuch, XXXIII, 1971, 175-204), p.193. Emphasis mine. Hackert's mention of "this", i.e., the 18th century is somewhat mysterious. I find it unlikely that he had an earlier depiction of this site in mind.

2 Alexandra R. Murphy, Visions of Vesuvius, exh.cat., (Boston: Museum of Fine Arts, 1978), pp.4-5.

3 See Camillo von Klenze, The Interpretation of Italy During the Last Two Centuries (Chicago: Univ. of Chicago Press, 1907), p.60.

4 W. Krönig stresses the importance of Hackert's visit to Sicily. See "Ein Agrigent-Bild von Philipp Hackert in der Universität zu Köln" (Wallraf-Richartz-Jahrbuch, XXVII, 1965, 417-22), p.422.

5 See Ludwig Schudt, Italienreisen im 17. und 18. Jahrhundert (Munich: Schroll Verlag, 1959), pp.174-83.

6 Page 24. The scientific aspects of Goethe's mode of observation will be discussed in Section II, Chap. 2.

7 Friedrich Noack suggests that Koch was the pioneer in exploring Italy. Though he is certainly very important in this regard, and will be considered more fully in Section III, Koch's discoveries must give pride of place to those of Hackert and Reinhart. Their work was both earlier and more eclectic. See F. Noack, Deutsches Leben in Rom, p.138, n.11.

8 Publication history given in Feuchtmayr, pp.397ff. The collection consisted of 72 sheets, 24 by each artist. The 2nd ed. appeared in 1798 with the French title. See Feuchtmayr, p.397.

9 This evocative phrase comes from Lawrence Gowing's description of Seghers' work given in a lecture to the Slade School, Univ. Coll. London, 1978. The plenitude of nature -- considered an aesthetic value -- is discussed in Section II below.

10 This effect is more likely to obtain in engravings, where lines are the means of visual communication. But few graphic works from this or any other period leave so little of the plate untouched. This effect is not merely the idiosyncrasy of one engraver, as Reinhart seems to have produced these plates himself, and does not always employ the same technique. While more detail in execution is bound to be found in engravings (and in drawings, when the artist chooses) because of the medium itself, it is possible, I think, to compare the overall articulation of the landscapes discussed here with some paintings. Koch's versions of the Schmadribachfall show the same detail in the "distance" or top of the picture surface as in the "foreground" or bottom. I will return to this discussion in Section III.

11 How a natural event can be taken "in itself" and simultaneously as a symbol is of great importance to German landscape painting from Hackert to Friedrich. It seems to me that the natural tends toward the natural symbol during the time between c.1770 and 1820, but always in the manner of Hegelian abrogation, where the natural phenomenon, in this case, is taken up but never completely forgotten as what it is. This change is a paradigm for the advent of "Romantic" landscape depiction. J.E. von Börries discusses the rainbow in contemporary paintings in Joseph Anton Koch: Heroische Landschaft mit Regenbogen (Karlsruhe: Staatliche Kunsthalle, 1967). I will return to this discussion in Section III.

12 Other natural cycles are explored by Hackert and Koch. The former painted a series of the seasons -- infrequently found in 18th or 19th century landscape -- for the King of Naples. (See W. Krönig, "Der Königliche Jagd-Pavilion im Fusaro-See bei Neapel und Philipp Hackerts Jahrzeiten-Bilder" Wallraf-Richartz-Jahrbuch, XXIX, 1967, 219-42). Koch's Schmadribachfall paintings depict the water cycle.

13 Brian Fothergill, Sir William Hamilton: Envoy Extraordinary (London: Faber & Faber, 1969), p.205.

14 An earlier exploration of these caves was conducted by John Brevel, and published in Remarks on Several Parts of Europe, I, 1738. The accuracy of Brevel's visual record is not as great as Hackert's, nor is the formation made to feel in any way immediate. See Ludwig Schudt, Italienreisen im 17. und 18. Jahrhundert, Abb.14.

15 Y. Boerlin-Brodbeck, Caspar Wolf, chap.4. Caves were also depicted by Reinhart. His engraving Die Landschaft mit dem Hieronymus, 1805 (Fig.48) focuses on the mysterious caves as much as on the barely visible figure, and is in the tradition of religious depictions of hermits and saints. It is one of the few religious pieces in Reinhart's oeuvre. St. Benedict is the other St. associated with caves.

- 16 Illustrations of the Weitsch, de Louthembourg, and Wright of Derby works can be found in the exh. cat. Caspar David Friedrich (Hamburger Kunsthalle, 1974), Abb.137-39.
- 17 Richard Payne Knight, Sicilian Diary, entry for May 27, 1777. This is a trans. by Brian Miller of Goethe's version of Knight's diary, included in N. Pevsner, "Richard Payne Knight" (The Art Bulletin, 31, 1949, 293-320), p.318.
- 18 Brian Fothergill, Hamilton, p.298. I have not been able to trace any of the Hackerts. See Chapter 3 for a complete discussion of Hamilton, Fabris, and Hackert.
- 19 See Alexandra R. Murphy, Visions of Vesuvius, p.5.
- 20 Both Hackert and Koch also painted the crater responsible for Lake Nemi, near Rome.
- 21 Philip Conisbee, Claude-Joseph Vernet 1714-1789, exh. cat. (Kenwood, 1976), p.4. The ref. to Conisbee immediately following in my text is to this publication.
- 22 Cited in W. Krönig, "Eine Italien-Landschaft des 18. Jahrhunderts in Deutschen Archäologischen Institut zu Berlin: Philipp Hackerts Ansicht der Solfatara bei Neapel" (Berlin: Deutsches Archäologisches Institut, 1964), p.8.

CHAPTER 3: Sir William Hamilton's Campi Phlegraei: Theory of the Earth and the Taste for "Particularity" in Late 18th Century Landscape

In 1776 Sir William Hamilton (1730-1803), British Envoy to the Kingdom of Naples from 1764 to 1800, published the first two folio volumes of Campi Phlegraei: Observations on the Volcanos of the Two Sicilies. Hamilton's expertise in what we would now call geology earned him the epithet "Professor of Volcanos" from Horace Walpole, though today he is remembered largely for his pioneering studies of ancient vases. He reflected and promoted contemporary taste for the simple, pure beauty of the classical figure with the engravings of his vase collection, published in 1766-67. When his pottery works opened in 1769, Josiah Wedgwood modelled three vases on illustrations from Hamilton's book. Illustrations from the four-volume Collection of Etruscan, Greek, and Roman Antiquities (1791-95) -- displaying a second collection formed by Hamilton -- also found favour with Wedgwood, as well as Flaxman and Fuseli.¹ But Hamilton's neglected scientific writings are of equal importance to the history of art. Indeed, Walpole alludes to all Hamilton's publications when subscribing to the Campi Phlegraei: "I shall desire to be a subscriber to your Vesuvius, but I wish you had not exchanged your taste in painting and Antiquity for Phenomena."² But any apparent disjunction of tastes is false. Hamilton had collected antiquities and scientific information with equal assiduity from the time of his arrival in Naples in 1764. The Campi Phlegraei marks a new trend in both science and painting: the combining of interests in natural history and landscape depiction through which "phenomena" become objects of aesthetic

value and taste. Broad relations between landscape and natural history in the late eighteenth century are mirrored by the specific integration of illustrations by Pietro Fabris³ and the theory of the earth put forward in Hamilton's text.

The coordination of natural history and landscape exemplified in the Campi Phlegraei was as important to late 18th century landscape art as was the interest in the antique to history painting and sculpture. The taste for landscape art both alert to and knowledgeable about natural phenomena reaches beyond Hamilton's commissioned illustrations for the Campi Phlegraei to inform the work of artists who saw themselves as followers of Claude, Nicolas Poussin, Gaspard Dughet, and Salvator Rosa. Many paintings by the then famous German Jakob Philipp Hackert, for example, demonstrate an interest in contemporary natural history in their detail, fidelity to natural phenomena, and choice of subject-matter. Well into the 19th century there is a type of landscape painting closely related to natural history, a type that bases itself on, yet, as I have said, simultaneously revises the 17th century landscape tradition. Sir William Hamilton's Campi Phlegraei is an early example of the fused interest in landscape and natural history which initiated a new direction in landscape painting. It is also a work of great intrinsic interest, and I shall therefore devote the first part of this chapter to its consideration. In the second part, I shall examine more briefly the general relations between landscape art and natural history in the late 18th century, focusing upon artists active in Italy.

I

The text of the Campi Phlegraei is a reprint of five letters written by Hamilton to the Royal Society of London between 1766 and 1770, originally published as Observations on Mount Vesuvius, Mount Etna, and Other Volcanos in 1772, and then in a new edition with the same title in 1774.⁴

"The general Desire of all Lovers of Natural History, that his Letters on the Subject of Volcanos should be collected together in one Volume," occasioned the original printing, encouraged the new edition of 1774, and ultimately the publication of the Campi Phlegraei itself.⁵ Professional and lay interest in natural history in general was high during the last part of the 18th century, and a special concern for earthquakes and volcanos was generated by the 1750 tremors in London and the calamitous Lisbon earthquake of 1755.⁶ Enthusiasm for the discoveries of what we now call geology was expressed in many forms: topographical poetry, popular lectures, travel literature, and scholarly treatises. The Campi Phlegraei incorporates the latter three, and, whether consciously or not, substitutes Fabris' masterly landscapes for the poetic aspect. The popular, informal epistolary mode in which the text is presented seeks explicitly to disclaim any attachment to the theoretical: "I shall confine myself", says Hamilton, "merely to the many extraordinary appearances that have come under my own inspection, and leave their explanation to the more learned in Natural Philosophy" (O,I,1-2). Hamilton's faith in scientific observation was absolute. His empirical approach in the Campi Phlegraei would suggest that phenomena speak for them-

selves, at least if properly displayed. The book attests to his concern for their accurate presentation, yet his disclaimer regarding theory is also rhetorical. Hamilton does not want to exclude the theoretical, but rather to substantiate it with observation: "It is to be lamented, that those who have wrote most, on the subject of Natural Hisotry have seldom been themselves the observers Accurate and faithful observations of the operations of nature, related with simplicity and truth, are not to be met with often" (CP,5; Hamilton seems to have Buffon and his Histoire naturelle in mind in the above passages. See O,V,142). The Campi Phlegraei puts forward the radical and even heretical thesis that the geography of the Naples area is essentially volcanic, that it is indeed still in flux. The essential controversy raised by Hamilton's assertions was that of a static versus a dynamic conception of the earth, discussed in detail by Porter in The Making of Geology. What he terms a "natural theory of stable order"(44), based on the necessary perfection -- and thus stasis, it was thought -- of God's Creation (at least since the Flood), predominated until the mid-18th century, thanks mostly to its theological sanction. Hamilton's strong evidence for geological change was instrumental to the growing acceptance of a divine, but dynamic conception of the earth. He was certainly right in believing that he had "open'd a new field for observation" with his vulcanology, and contributed to "the theory of the earth, of which . . . we are very ignorant" (O,I,8,n.c). His style seems casual, but this departure from conventional presentation parallels and serves to underline the newness of his theory of the earth and his radical integration of the visual and discursive in the Campi

Phlegraei.

Hamilton's book is really not at all casual, though its lively style brings it closer to the public lecture than to the often prolix and soporific treatises on natural history published at the time. He spent over 1300 pounds on the production (Morrison, Letter 71); everything points to almost obsessive preparation and care. By 1779, when a third folio volume was published adding several plates and an account of the disturbances on Vesuvius since 1776, Hamilton had climbed this volcano no fewer than fifty-eight times, often during eruptions (Fothergill, 141). Accuracy in detail is a ubiquitous theme; every natural phenomenon is measured. Hamilton notes repeatedly that Pietro Fabris was explicitly chosen for this work -- because of the artist's special abilities, we must assume -- and constantly supervised by the author. The plates are line engravings, executed by Joseph Guerra, and hand-coloured by Fabris. Hamilton praised -- and advertised -- the veracity of the illustrations, saying that they "are executed with such delicacy and perfection, as scarcely to be distinguished from the original drawings themselves" (CP, 6), which were done "after Nature" by Fabris. Hamilton's thoroughness in the production of the Campi Phlegraei attests to his belief in the importance of coloured illustrations to the accurate representation of natural phenomena, and in the significance of the overall project of making scientific information visible to his audience. The Campi Phlegraei, in short, witnesses an ethic of observation resulting in a virtual cult of the visual.⁷

Hamilton is "sensible of the great difficulty of conveying a true idea of the curious [i.e. interesting] country

[he has] described, by words alone" (CP,5). Fifty-four large plates by Fabris accompany volumes one and two of the Campi Phlegraei. The number, size, variety, quality, and especially the integration of these illustrations with Hamilton's writing make the work unique for its time and forward-looking, since frontispieces were often the only illustrations in 18th century scientific publications. Hamilton's own Observations incorporates more visual information than most contemporary efforts (five uncoloured plates and one fold-out map), but not until the 1820's, when lithography was fully exploited for scientific communication, was any such publication to match the Campi Phlegraei in scope or sophistication.⁸ If all works in natural history attended with such fidelity to the visual, Hamilton says in a letter to his nephew Charles Greville, "we should not be so much in the dark as we are" (Morrison, Letter 54). Each of Fabris' plates is keyed to the relevant passage in the general commentary, and each has a page of "Remarks", indexed to exact details in the illustration with small numerals. Hamilton strives to make his observations accessible, to instruct his readers (not least about his own views on the volcanic origin of the region), but also to allow the reader to see for him or herself. The plates supplement the commentary, but also present independent scientific information. Fabris' landscapes are themselves examples of scientific exploration, observation, and theory.

The theory of the earth advanced by Hamilton governs which landscape sites are of scientific -- and in turn, aesthetic -- concern in the Campi Phlegraei, and his demand for detailed, accurate visual information determines how these landscapes will be executed. A landscape drawing and engraving,

therefore, must respond to the requirements of natural history. This is the basis of aesthetic value. "Mr. Fabris", boasts Hamilton, "completed this collection under my eye, and by my direction, with the utmost fidelity, and I may add likewise with as much taste as exactness" (CP,5). Exactness is the taste. Hamilton turns habitually to the visual to further his arguments, and seeks to refine his use of this type of evidence. At the close of his second letter, for example, he adds: "I have also accompanied that collection ['of every sort of matter produced by Mount Vesuvius'] with a view of a current of lava from Mount Vesuvius; it is painted with transparent colours, and, when lighted up with lamps behind it, gives a much better idea of Vesuvius than is possible to be given by any other sort of painting" (O,II,41). This is most certainly a reference to one of Fabris' watercolours, from which the Campi Phlegraei's illustrations are derived.

A similar technique of transparent painting with lights behind was used by Philippe Jacques De Louthembourg (1740-1812) to increase the illusionism of his theatre pieces at Drury Lane in London. His famous Eidophusikon (a box six feet wide, three high, and ten deep, developed in the early 1780's) produced, in De Louthembourg's words, an accurate "imitation of Natural Phenomena, represented by Moving Pictures".⁹ Thomas Gainsborough also experimented with devices that aimed to reproduce nature's phenomena closely. Inspired by De Louthembourg, he developed a shadow box, "constructed of movable glass plates, on which he painted landscapes" (Joppien, Intro.,n.p.). The addition of these instances to Hamilton's earlier experiments indicate a widespread interest in the accurate reproduction of natural effects. Hamilton specified

this concern by developing specific technical means by which landscape depictions could become carriers of scientific information, and ultimately, integrated scientific-aesthetic objects.

Hamilton's investigations of the "Campi Phlegraei" -- the "burning lands", as he says the "ancients" named the area -- are both extensive and intensive. Some idea of the task of representation given to Fabris can be gleaned from the following comment: "By having . . . anatomized so considerable a tract of land, and given the most exact representation of each minute part," Hamilton believes he can explain the region's natural history (CP,11-12). We will see "each Cone, each Crater, and by the sections of these, the very strata of which they are composed; nay even the specimens of the materials that compose those strata" (CP,12). Minute observation will elucidate the great processes of nature. A large number of illustrations is needed to accommodate the variety of natural forms integral to Hamilton's exposition. On December 19, 1755, Greville received the author's report that "the work goes on well, but we cannot include everything curious [in] under 50 plates" (Morrison, Letter 60).¹⁰ There are depictions of atmospheric conditions caused by Vesuvius, vegetation affected by eruptions, the region's soil, the local inhabitants, the overall topography and, of course, rock formations. These phenomena are illustrated in numerous ways: panoramic views, close-up cross-sections, numerous depictions of individual specimens removed from their surroundings, "bird's eye" views, and even a spectacular night vision of Vesuvius erupting.

The title page of the Campi Phlegraei announces an

ethic of empirical observation that entails the investigation of numerous sites and natural phenomena and demands an unprecedented accuracy of depiction. The following appears immediately after the full title: "To which, in Order to convey the most precise idea of each remark, a new and accurate map is annexed, [and] 54 plates illuminated from Drawings taken and colour'd after Nature." Hamilton relies on the visual to carry his arguments. He believes in the scientific efficacy of drawings, and uses them in his own experiments, monitoring Vesuvius' activity in the spring of 1767 with his own sketches: "I had watched the growing of this little mountain; and, by taking drawings of it from time to time, I would perceive its increase most minutely" (0,II,22-23). (This method -- using photographs -- was employed to predict the 1980 eruptions of Mt. St. Helens in Washington State, U.S.A.). The emphasis, as always, falls on detail and accuracy. Hamilton frequently notes the colour of rock specimens, vegetation, and atmospheric phenomena (See CP,Pl.XXXIII,Fig.35, about which Hamilton says: "In the Evening Vesuvius has often the purple hue represented in this Plate."), and again commends the verisimilitude of Fabris' illustrations.¹¹ The titles of the plates are often very specific; the accompanying "Remark" focuses attention on even more minute aspects of the illustration. Plate VIII, for example, is entitled "Representation of a thick Stratum of Lava that ran into the sea from Mount Vesuvius in the terrible eruption of 1631." The date is scientifically as well as historically significant, since the change in lavas through time was crucial to contemporary theories about the formation and maintenance of the earth. The remarks differ-

entiate a strata of ashes, scoria on the surface of the lava, and other "distinctive marks of Lavas in general" of which only the represented landscape gives evidence. Fabris' illustrations are successful in representing the actual visual differences in this example, and in preserving precise relationships of scale in others where Hamilton has measured the phenomena, rather than merely recording spatial relationships between the phenomena discussed, or depicting their differences only through symbolic conventions. For example, Fabris could have composed a legend of symbolic marks -- like those used in many modern maps -- to represent different types of lava; instead he has shown us accurate, visual details and comparisons. Closer examination of landscapes from the Campi Phlegraei can give some idea of the complex and subtle visual lexicon developed by Fabris to meet the demands of scientific observation.

The View into the Valley call'd Atrio Di Cavallo between Somma and Vesuvius (Fig.35) shows a woman of high social station being borne in a litter towards Vesuvius. Hamilton frequently complained of the number of visitors he was obliged by his official capacity and his fame as a natural historian to guide around the area. The purpose of the ascent is observation, and the volcano cooperates by displaying a spectacular plume of smoke and ash. Mount Vesuvius was a required stop on the itinerary of anyone on a Grand Tour; there was a demand for pictorial mementos of this and other natural spectacles in the area. But this and all other illustrations to the Campi Phlegraei provide much more visual information than was required by the average tourist. The rugged projections of grey rock that dominate the landscape are mostly

scoria -- a volcanic rock closely related to pumice, but coarser and with fewer and larger air spaces -- discussed frequently in the text. Fabris also depicts another rock type in the right foreground and the left middle distance. This is a smoother variety, cooled into rope-like coils, which Hamilton calls "rope lava" (Fig.36). Fabris has clearly delighted in depicting the pattern of these lava formations, as well as in indicating with great precision their delicate grey shadings. In the distance, but commanding the composition, we see Vesuvius itself. The volcano, the source of these lava curiosities, is itself decorated with dark grey lines caused by lava flowing through ash, another phenomenon elucidated by Hamilton in the text. The entire landscape is softened by the purple hue that Hamilton tells us often surrounds the mountain in the evening. All of this scientific information is preserved and communicated by Fabris' landscape through infinitely subtle control of washes, and the precise, delineating line of the engraving.

The formal structure of this composition reinforces the theme of observation, and calls our attention to phenomena of particular interest. The red jacket of the centrally placed figure catches the eye's attention. The guide next to this man gestures towards the volcano as he discusses it with the woman in the litter. The gesture towards Vesuvius includes the beholder of the plate, as well as those individuals depicted, in a joint project of observation and exploration. A smaller figure just to the left of the first carries our eye along a right-to-left diagonal into the middle ground, and finally to the two small but remarkably visible figures silhouetted in the left distance. One of these figures points

towards Vesuvius, echoing the guide's acknowledgment of the landscape's principal phenomenon. The imaginary line from foreground to background is that still to be travelled by the group in the centre of the composition. Yet it is the line of natural exploration which we, as observers outside the landscape, can follow immediately with our eyes. Two small figures in the right distance effectively frame Vesuvius with their gazes, closing the composition on the right side. We can see simultaneously what the staffage figures can view only sequentially; we inspect either the minutia of close-up lava formations or the configuration of the entire valley at will.

A subsequent plate transmits even more data. The View of a hollow road leading to the Grotta Di Pausilipo at Piuma (CP, Pl. XXXX [sic.]; Fig. 37) shows volcanic strata exposed where a river has cut through the land. Successive layers of lava, ash, soil, and vegetation are accurately distinguished by colour washes of uncommon delicacy, as well as by an exact linear notation of differences in texture and scale. The varied penwork of the drawings -- the line of the engravings -- responds to the range of geological forms. The precise handling of colour and tonality in the generally light rock face to the left -- the succession in grey washes from near black to almost white, in tonality from deep shadow to highlight -- makes clear the important distinctions between strata elaborated discursively in the commentary. Again in this landscape, the formal structure underlines the general theme of observation and emphasizes natural phenomena of particular interest. The rider in the left foreground (again, wearing red) and the figure on foot have their backs to us as we look

at the picture. Therefore, we as beholders assume the same corporeal attitude as these figures; we face into the landscape, seeing what they see. The line of sight, doubled by the road itself, leads immediately to two figures gesturing towards volcanic strata. The natural historians point out what all observers should now see. Their poses are not, however, didactic, nor do they suggest any awareness of other onlookers. They are absorbed in observation, as anyone viewing these landscapes by Fabris must also be.¹²

Every plate in the Campi Phlegraei carries a significant amount of information for the natural historian. But these illustrations are much more than visual aids. Hamilton's inseparable concern for both natural history and its visual representation creates a landscape art in which scientific and aesthetic values merge. He often notes the beauty of Fabris' work; this judgment is, I think, sufficiently attested by the plates reproduced here. For Hamilton, and increasingly for many of his contemporaries, the beauty of these landscapes -- their aesthetic value -- comes from (a) the majesty of many of the forms and phenomena themselves, (b) the veracity with which an artist represents these forms and phenomena, and (c) the understanding of (a) -- the phenomena -- and (b) -- their representation -- in terms of natural processes disclosed by scientific investigation. Aesthetic judgment here relies on the nature of the subject and the manner of its depiction -- this is commonplace. What is new is that the choice of the subject and its concomitant visual embodiment depend partially upon concerns of natural science. As shown in the foregoing discussion of the Campi Phlegraei, the subject matter is selected for its scientific interest, point (a) above is

chosen in terms of (c). The requirement of close observation in turn affects representation, promoting in (b) -- the representation of subject matter -- the detailed and accurate depiction of phenomena. In his first letter, for example, Hamilton vividly describes his overnight stay on Vesuvius during the eruption on Good Friday, March 28th, 1766. The molten lava near the mouth of the volcano "had the appearance of a river of red hot and liquid metal, . . . on which were large floating cinders, half lighted, rolling one over another with great precipitation down the side of the mountain, forming a most beautiful and uncommon cascade" (O,I,6-7). A similar phenomenon is illustrated^{ed} in plate XXXVIII of the Campi Phlegraei. The interest so obviously demonstrated by the on-lookers -- the "Sicilian Majesties" in this case -- is at once scientific and aesthetic. Charles Greville encapsulates this integration and mutual enhancement of concerns in a 1781 letter to his uncle: "I would not give up what I have attained & in great measure owe to you, & to the charges trusted to me for any consideration from my love for Natural History. Every ride, walk, or journey acquire [s] new satisfaction from observing the connexion of the different strata, their changes and appearance. By virtue I am led to a closer examination of the beauty of form, & have more resources than others, from the mode of viewing it . . ." (Morrison, Letter 105). Here again is the creed of visualization, even of a quality as seemingly ineffable as "form" (see n.7, above).

The subject matter of Fig.37 is strikingly illuminated by Greville's remarks. A new appreciation of landscape results directly from natural history: what were at the time non-traditional sites became beautiful. Many of Hamilton's

comments regarding the beauty of volcanic phenomena operate as substantiations of his controversial theory of the earth. He and a few others (such as William Bowles, Sir John Strange, Augustus Hervey and Patrick Brydone (Porter, p.162)) put forward the argument that the earth is in flux, that it re-creates forms through violent processes and thereby maintains itself, ^{which} is easily accepted now. But, as mentioned above (p. 48), in the late eighteenth century the notion that the earth remained active contradicted theological beliefs about its creation. (The argument concerning theories of "preformation" and "epigenesis" in the contemporary biological sciences is similar in principle, as the former held that an organism must, if created by a perfect God, be somehow complete from the beginning.) The age of the earth was not agreed upon, and there was an inherent conservatism in its calculation stemming from Biblical accounts. Hamilton's investigations proved first that the earth changes -- his prime evidence was the creation of Monte Nuovo in forty-eight hours in 1538 (Fig.32; see O,V,127ff.) -- and second, that the earth is much older than anyone had yet dared to say. He supplemented these persuasive arguments with examples of the useful and beautiful aspects of volcanos, to offset his readers' reluctance to accept his point of view.

Hamilton's comments in this context are both specific and general. Well aware of the recurring devastation caused by Vesuvius (he lived in Naples from 1764 until 1800, during which time there were at least four major eruptions), Etna, and the other local volcanos, he nevertheless notes how, in Sicily for example, lava from Etna "ran a considerable length into the sea, so as to have once formed a beautiful and safe

harbour" (O,V,65). Valuable soil is a frequent theme: "the plain within the crater" (of Monte Barbo, see CP,Pl.XXVIII) is "one of the most fertile spots I ever saw" (O,V,147). Volcanic caverns on the island of Ischia are used for cold storage; numerous hot springs attend to the inhabitants' ailments. Hamilton invokes the beauty and instrumentality of such volcanic phenomena, encouraging us to look beyond their terrifying, destructive aspects. Time is the key: "Such wonderful operations of Nature are certainly intended by all-wise Providence for some great purpose . . . we are apt to judge of the great operations of Nature on too confined a plan" (O,V,160-61). Included in this final letter of the Campi Phlegraei is the following evocative metaphor, one not inappropriate to 20th-century theories of plate tectonics and continental drift (whereby the outer layer of the earth's crust is held to consist of plates which drift on the underlying layers, slipping over or under one another at weak points, such as that near Naples, and causing geological disturbances): "May not Subteraneous fire be considered as the great plough . . . which Nature makes use of to turn up the bowels of the earth, and afford us fresh fields to work upon?" (O,V,161). Hamilton's hope for the Campi Phlegraei is that "by the exact representation of so many beautiful scenes, all of which have been undoubtedly produced by the explosions of Volcanos, that this tremendous operation of Nature will now be considered in a Creative rather than [in the] Destructive light" (CP,12-13; emphasis in the first clause is mine), in which they had usually been seen until the late 18th century (Porter, p.161; see also M.H. Nicolson,

Mountain Gloom and Mountain Glory (New York: Norton, 1963), passim.)

I have argued that the interest in specific natural phenomena -- and in natural history in general -- determined the aesthetic value of landscape to a considerable degree in the late 18th century, that it in effect chose the sites and demanded a detailed, accurate execution. The scientific credo of observation became explicitly visual through its alliance with pictorial representations like those of Pietro Fabris. The ostensibly informal theorizing of Hamilton's Campi Phlegraei posits visual, not discursive, comprehension as the means and goal of scientific inquiry. Widespread scientific understanding on the part of patrons like Hamilton, artists like Fabris, and a growing percentage of society accounts to a significant extent for the new interest in landscape depiction characteristic of the late 18th century throughout Europe.¹³ The intense focus upon natural history is further attested by Hamilton's use of "the ancients" in the Campi Phlegraei.

Sir William Hamilton was a man of great classical learning, one whose taste for antiquity affected no less influential artist than Wedgwood. The very title Campi Phlegraei is derived, Hamilton states, though without a reference, from "the ancients'" name for the region. The work is indeed replete with references to Pliny the Younger, Virgil, Strabo, Vitruvius, and others, but the authority of these authors is not the occasion for discussions in the Campi Phlegraei. Classical citations are used only to confirm Hamilton's scientific arguments. The preface of the 1774 edition of the Observations suggests that the work is conceived "particularly for the Convenience such as may have an Opportunity of visiting

the curious Spots described." This guidebook, however, situated the interest in a given location in its natural historical significance, whereas the interest of most late 18th century Grand Tourists would have been in the classical allusions. Reference to the classics was part of the learned discourse of the time; it had both familiarity and authority. Hamilton takes advantage of these very qualities to promote the scientific understanding of the phlegraean plain.

Unplanned and informal as the letter sequence comprising the text might seem, it builds up to an apotheosis of Vesuvius' benefit to mankind in Letter V, where the soil around Naples is discussed. References to classical writers are used here, as throughout the book, to substantiate observations about volcanic phenomena. In this letter Hamilton is most concerned to demonstrate the continuous activity of Vesuvius, and thus the change that the earth undergoes constantly. He recalls that Pliny the Younger's account of the eruption in 79 A.D. is the "first recorded history" of the mountain (O,V,94). Ancient sources well known to his readers establish the chronology of volcanic activity: "Strabo, Dio, Vitruvius all agree," we are told, "that Vesuvius, in their time, showed signs of having formerly erupted" (O,V,111; "Dio" is Diodorus Siculus of Agyrium, who wrote a world history, c.60-30 B.C.). Pliny's account refers, of course, to the eruption that buried Herculaneum and Pompeii, two of the most famous ancient sites (excavated in 1738 and 1748 respectively). Artifacts uncovered at these sites provided canons of taste for 18th century architecture, statuary, furniture, and pottery, Hamilton's own special interest. But in the Campi Phlegraei, these cities and Pliny's descriptions of them are studied only as

they relate to natural history (see Pl. XXXXI). Differences between the rocks at the two places -- the pumice at Pompeii, and the "soft stone, composed of pumice, ashes, and burnt matter . . . called Naples stone at Herculaneum . . . " (0,V,101-02) -- indicate that Pompeii, being farther from the mountain, was buried only once, whereas Herculaneum suffered under several layers of volcanic debris deposited over an extended period. ^V~~A~~tⁱvius' opinion is noted, but only in regard to "that fine burnt material . . . puzzolane, whose binding quality and utility by way of cement he mentioned" (0,V,102). The Grotto del Cane near Lake Agnano was famous on the Grand Tour for its poisonous vapours. Hamilton refers to Pliny's discussion of this characteristic, but only to prove that the lake is of volcanic origin. On the same theme it is noted that "Virgil and other ancient authors say, that birds could not fly with safety over the lake of Avernus, but that they fell therein" (0,V,149). (Virgil's words are: "Over this lake no birds could wing a straight course without harm, so poisonous the breath that streamed up from those black jaws [of the cave] and rose to the vault of the sky; and that is why the Greeks names this place 'Aornos, the Birdless'" Aeneid,VI,239-43).¹⁴ Again, the point is the lake's long-standing volcanic nature, to which the sulphurous vapours attest. The letters put forward the radical thesis that the entire region is of aquatic origin, thus contradicting the still widely held notion that all natural formations must be original, that is, that water could not have been where it is not now and have formed new mountains apart from God's original work. Hamilton believes that his observations "confirm the accounts given by Strabo, Pliny, Justin, and other ancient authors, of many islands in the Archipeligo, . . . having

sprung up from the bottom of the sea" (O,V,157). Once again, the natural history is of prime importance. When we look at one of Fabris' exquisite panoramic views of the Bay of Naples -- such as Pis. XXX and XXXI, a type that became very popular -- we see in the first instance that volcanic islands had actually emerged from the sea, that peninsulas are really lava flows, not that it was here where Aeneas, for example, sailed.

It was just this latter sort of association that occasioned interest in certain natural phenomena or locations up until the late eighteenth century, and even amongst many of Hamilton's contemporaries. Two examples must suffice. First, though Petrarch in The Ascent of Mont Ventoux (1336) claims that "nothing but the desire to see its conspicuous height was the reason for [his] undertaking" the climb, we know only a few lines later that it was actually Livy's account of a similar journey made by Philip, King of Macedonia, up Mt. Heamus in Thesaly that suggested the project.¹⁵ Petrarch is much more interested in his own spiritual ascent and the bearing of such classical adages as Virgil's "Ruthless striving overcomes everything" (Mont Ventoux, 38) on it, than in the natural phenomena he encounters. Second, when Richard Payne Knight undertook a trip to Sicily in the spring of 1777 with the Englishman Charles Gore and Jakob Philipp Hackert, the classical associations of the sites visited were of greatest importance, even though Knight knew Hamilton and his Neopolitan circle well, and though a knowledge of volcanic phenomena is indicated in the diary he kept.¹⁶ Before examining the architecture of the three temples at Paestum, for example, Knight quotes Virgil's description of the site from the third

book of the Georgics (diary entry for 13 April, 1777). In the description of the Lipari Islands of 24 April, he involves himself in a lengthy discussion of the appellation "Aeolian", given to these islands by the ancients because of the supposed location of Aeolus' cave. He invokes evidence from Virgil, Pliny, Strabo, and Flaccus and concludes that "the place itself demonstrates sufficiently the poet's opinion" that the cave was on Stromboli and further, that "Flaccus' description is even more exact, as Stromboli, exactly as he described it, is separated from all the other islands."¹⁷ More important here than the resolution of Knight's questions is his use of classical writers as authorities and his desire to test their words. Hamilton also verifies the testimonies of these authors on occasion, but this is, as it were, a side effect of his scientific inquiries rather than the source of his questioning.

The novel use of classical allusion in the Campi Phlegraei stands out most clearly in the "Remarks" to plate XVI, the Entrance of the Grotto of Pausilipo (Fig.38). This site is "an ancient and great Work mentioned by Strabo, Seneca, and Other old Authors," the reputed tomb of Virgil. Hamilton informs his readers, pays his respects to the ancients, but does not launch into the expected panegyric. He asserts instead that "the chief purpose of this Drawing is to give an exact idea of the appearance of the section of part of a mountain." We are encouraged to observe the details of nature rather than dwell on Virgil, just as in the panoramic views of the phlegraeian plain (CP, Plates XXX, XXXI) the new associations of natural history are laid over those of the classical world. Both landscapes are traditional in many senses. Because of their classical references, the subjects

are not entirely new. In Fabris' work as a whole the norms of aerial perspective, the use of repoussoir juxtaposition to secure pictorial depth, and of coulisse elements to frame the composition, are maintained. Formal design features are used to accentuate points of interest in a rigorous but not altogether new manner (Nicolas Poussin, for example, did the same and had a great influence on 18th century landscape). A general attention to overall composition and the creation of a beautiful whole is typical of landscape painting from the 17th century on, and indicates that these works are much more than "mere" illustrations. These traditional aspects of the Campi Phlegraei landscapes -- because they are new, but not so new as to be disregarded -- allow them to carry their radical component: scientific information. Just as the epistolary format of the text disguises its mission of persuasion, so too the seemingly typical concerns of the landscapes mask, and are thus able to promote, their subtle inclusion of natural history made visible. The discoveries and concerns of natural history broadly inform the tastes and practices of landscape depiction in the late eighteenth century. I will now turn to a limited consideration of this wider relationship between landscape and science.

II

In order to gauge and trace the extent to which the interest in natural history affected landscape painting at this time, Sir William Hamilton's considerable role as a patron must first be understood. While Hamilton's researches and artistic patronage had a decided effect upon both science and art, his commissions are nonetheless as much the product

as the source of the combined interest which, as shown in Part I, culminated in the detailed landscapes of the Campi Phlegraei. Landscapes demonstrating similar concerns were produced by artists such as Joseph Anton Koch who were beyond the scope of Hamilton's influence. Koch belonged to the next generation, and actually disdained the work of an artist very close to Hamilton, Philipp Hackert. Even without Hamilton, then, it seems likely that landscape would have been affected by the contemporary interest in natural science in something like the ways I have described. At the same time, however, examples of the landscape type represented in the Campi Phlegraei are, between c.1770 and 1800, frequently mediated by his presence. In Part I, I described the precise, detailed appearance of Fabris' landscapes -- the characteristics that allow them to carry scientific information. In Chapter 1, I called this set of characteristics the "particularity" of the landscape, as it is both perceived and rendered by the artist. Again, "particularity" in this context refers to (a) the individual elements of the natural landscape which are of special interest because of their significance to the natural sciences -- atmospheric phenomena (such as the purple hue around Vesuvius discussed with regard to the view of the Attrio del Cavallo, Fig.35), animate and inanimate objects (like vegetation and rock formations), and topographical details (a certain formation, like the Grotto of Pausilipo, Fig.38) -- (b) to the careful study and depiction of such natural phenomena, and (c) to the concomitant clarity and detail of the artistic product. Particulars are, as Oppé states, "technical details, with their emphasis on method and faithful representation of nature" (0,19). My use of this

term also means to raise the many issues discussed in the 18th century under the rubric of the relation between universal and particular, which formed the basis of much contemporary art theory. According to W.J. Hipple, for example, "the primary and ubiquitous principle in Reynolds' aesthetic system is the contrariety of universal and particular."¹⁸ What I see as a new interest in particularity at this time -- and the concomitant questions of artistic imitation, the definition of "nature", the artist's education, and so many others -- arises within the tradition of imitating the grander aspects of nature, as evidenced by the paintings discussed below.

The late 18th century enthusiasm for landscape painting focuses more on collecting than on patronage.¹⁹ Sir William Hamilton was an avid collector with tastes typical of his period, but he departs from the norm in his extensive patronage of contemporary artists. In contemporary painting, he favoured portraiture (his wife Emma was the usual subject), and landscape. The collection of 347 paintings recorded in July, 1798 by Sir William and again in the autumn of the same year by James Clark included two portraits of Emma by Angelica Kaufmann, one of the Duke of Brunswick by Pompeo Battoni (1708-87; Mang's principal rival in Rome), two studies of Emma by Goerge Romney, a Cupid by Gavin Hamilton (no relation), other portraits by J.H. Wilhelm Tischbein (1751-1829; Goethe's friend), and finally, Sir Joshua Reynolds' portrait of Emma.²⁰ Hamilton's preference in modern landscape was less conventional. In the room by room recording of his collection described in a letter, Hamilton noted no fewer than ten pictures (no doubt landscapes) by his "favourite painter"²¹ Pietro Fabris in one

of the main rooms. Also making up the total of fifty-three paintings in this room was a portrait by Rembrandt, two seascapes by Joseph Vernet, a "sketch of the head of one of Rubens' wives by Rubens . . . a battle piece by Wouvermans, two views of Venice by Canaletto, . . . a Dutch scene by Chardin . . ." and many others (Fothergill,297). This was perhaps the second largest and most important hanging room for Hamilton's collection, indicating that his landscapes were of considerable importance and could be displayed with his best pictures. For example, "many more volcanic and view paintings of Naples by Fabris and Hackert" (Fig.37) were hung elsewhere with additional Canalettos, a Tintoretto sketch, two landscapes by Salvator Rosa, a Poelenburg, and a Cuypp (Fothergill,298). In yet another room, views by Fabris were hung with works by Nicolas Poussin. Hamilton evidently found his contemporary landscapes in keeping with his traditional taste for the 17th century Italianate masters of this genre. Yet the particularity in landscape demanded by Hamilton and realized by Fabris was widely criticized in the works of Philipp Hackert (as I discuss below, pp.77 ff.) -- an artist who nonetheless saw himself in the 17th century Italianate tradition -- precisely because their detail was thought to deviate from the ideal, the sense of the whole, which guided the classical landscape tradition.

Though they both worked for Hamilton, Fabris and Hackert are, I think, quite different sorts of artists. Fabris was a highly skilled viewpainter whose work for the Campi Phlegraei was explicitly prescribed. Hackert was an independent and prosperous artist in the fine art tradition. His adoption and development of what I have called particularity within

the framework of 17th century Italianate landscape painting is the specially German reaction to contemporary natural history. Hackert was close to Hamilton and certainly developed an interest in particularity through this contact. But this characteristic is found in his earlier work²² and maintained well after Hackert's independence from Hamilton, suggesting that the particularity of landscape depiction did not rely completely on the British Envoy's commissions.

Jakob Philipp Hackert came to Italy from Berlin in 1768. His reputation as a landscape artist grew rapidly in Rome, and he sought further patronage during a trip to Naples in 1770. Though it is difficult to pinpoint the date, Hackert seems to have executed several views of the 1769 eruption of Vesuvius for Hamilton at this time.²³ Drawings of another eruption in 1774 were the basis for full-size oils painted in Rome (G,63; Fig.39).²⁴ Hamilton owned numerous paintings by Hackert and spent a great deal of time with the artist after Hackert became court painter to King Ferdinand IV of Naples in 1786. Hackert was, then, a member of the British circle in Italy; hence his friendship with Payne Knight and Charles Gore which led to their 1777 Sicilian journey. He was also the most successful landscape artist in Europe since Joseph Vernet: Goethe reports Hackert's assertion that commissions were so numerous that "many admirers died before their desired paintings could be delivered to them"(G,121). Hackert's fame was such that it would be more accurate to say that the British were members of his circle. It is not surprising that when Hackert worked directly for Hamilton his paintings show the characteristics of particularity adumbrated above. But Hackert's professional success from about 1780 on gave him

considerable freedom to paint what and how he wished. He singlehandedly formed the taste of his major patron, the King of Naples, as the Queen reports: "I am delighted", she says to Hackert, "that the King has found a taste for the fine arts, and we have you to thank for that" (G,126). Ferdinand came to expect Hackert's presence on all his many hunting trips so that the artist could "observe and learn exactly" all phenomena to be painted (G,126). Hackert's landscapes range from idealized views in oil to large sepias of particular natural phenomena such as the waterfall at Isola di Sora (Figs.21,22 discussed in Chapter 2).²⁵ Yet even those landscapes closest in style to Claude or Gaspard Dughet show a greater interest in detail than the earlier works, and often depict a scene or phenomenon of interest to the natural historian. Like Hamilton, Hackert found his interest in particularity quite consistent with the great tradition of landscape painting.

Hackert's Ansicht der Solfatara of 1788 (Fig.31, mentioned in Chapter 2) was not painted for Hamilton, but it clearly indicates an interest in a particular natural phenomenon, a lushly vegetated volcanic crater similar to that of Monte Barbo described in the Campi Phlegraei (see above, p.60). This full-size oil (155 x 209cm.) represents in great detail the formation of the crater and the pattern of its plant life.²⁶ Hackert combines a conventional use of coulisse -- the trees on either side of the composition -- with an exact rendering of a site chosen, I submit, largely because of its scientific interest. Neither this subject matter nor visual accuracy can be found in 17th century Italianate landscape painting. That the artist is shown sketching the scene which we as

observers of the painting see underlines the theme of observation. He faces away from us into the landscape, duplicating our physical relation to the canvas and encouraging us to see what he sees and records. Similar depictions of artists at work -- adding verisimilitude to a scene by their presence -- are not unknown in earlier art, but we are usually looking at them, rather than with them at the landscape. Three of Fabris' plates from the Campi Phlegraei as well as many other pictures at this time include an artist at work; again, the structure -- wherein the artist mirrors the external observers' corporeal attitude -- leads us into the landscape itself (see CP, plates XXII,XXXVIII,XXXIX). The widespread occurrence of this motif suggests not only that Hackert might have been directly affected by the style and aims of the Campi Phlegraei illustrations (which he would certainly have known), but points also to current, more general preoccupations with the accurate observation and depiction of natural phenomena. Landscape painting can be a form of scientific exploration, as Hackert himself suggests in the animated description of the waterfall at Isola di Sora already cited: "It was unknown to art; I have been the first to draw it in this century." Since artists' originality was beginning to be topical at this time, some of Hackert's enthusiasm might stem from the artistic uniqueness of his discovery. But because he saw himself as a follower of the seventeenth-century landscape tradition, and found his justification there, his interest in artistic originality would not seem to be the primary concern. Hackert is pleased, I suggest, primarily because he can depict an unknown natural phenomenon. Two views of the so-called Ohr des Dionysos (Dionysius's Ear),

made near Syracuse during Hackert's 1777 Sicilian trip and now in the British Museum, suggest a similar fascination with scientific information about natural phenomena. The natural formation itself is carefully described from without (Fig.28) and within (Fig.29) with line and sepia wash; observers are present as in Fabris' landscapes (Figs.35,37), making it seem once again that geological study is more significant than classical allusion. Even when Hackert's choice of subject was completely unguided by the concerns of natural history -- when he was following the 17th century masters most closely -- his work still shows an interest in the particularity of landscape by its inclusion of detail and focus upon natural phenomena. In general, Hackert's bent for natural history occasions and directs a revision of the Italianate landscape. The characteristic particularity that results accounts for the very different appearance of the 18th century paintings when compared with their 17th century models, as the examples of depictions of Tivoli in Chapter 1 demonstrate.

Hackert's detailed landscape style, then, can be separated from the commissions of Sir William Hamilton. The work of both men represents and promotes a popular interest in natural history which stems from the rapid growth of science into the public domain in the late 18th century, a movement exemplified by the broad dissemination of informal scientific journals, and by the founding of professional and amateur scientific societies.²⁷ At least one other important patron combined scientific and aesthetic concerns in his landscape commission: Frederick Hervey, at once the Earl of Bristol and Bishop of Derry (1730-1803). He was a school friend

of Hamilton, who initiated his interest in geology and vulcanology during Hervey's first visit to Naples in 1766. Lord Bristol, as he was usually called, employed the artist Michael Shanahan to depict the controversial formations of the Giant's Causeway in Derry in about 1770.²⁸ His presence in Italy was especially welcome during the political turmoil of the 1790's: in 1796, for example, he was the only substantial patron in Rome (Ford,432). His tastes, like those of Hamilton, were broad. Flaxman's Fury of Athamus (1790-93; Ickworth House) is his best known commission, though in fact he purchased mostly landscapes, and, again like Hamilton, from British and German artists. Philipp Hackert and the Welsh landscape painter Thomas Jones (1743-1803) both received numerous orders from Lord Bristol. Bristol's relationship with Jones is crucial to an understanding of the contemporary controversy (discussed below, pp. 78 ff) over the detail of Hackert's paintings, and hence to the particularity of landscape art in general.

The Italian lakes Albano and Nemi were very popular subjects in late 18th century landscape painting, as they had been in the previous century. But now their popularity rested at least in part on their volcanic origin, their association with the contemporary fascination for natural history and especially vulcanology. Thomas Jones completed a large oil of each (Lake Albano in 1777, Lake Nemi in 1782) as a "companion" set for Lord Bristol.²⁹ Jones remarks that the "mountainous district" of the Alban Hills southeast of Rome where these lakes are located "was evidently formed by Volcanic Eruption's [sic.], tho' long before the Reach of History, as the present face of the Country seems to be the

same as what we find it to have been in the earliest Periods of the Romans" (J,60). He continues with a detailed description of volcanic rocks, comparing them with those formed by Vesuvius' lava flows, adds to this the evidence of "those two immense inverted Cones, the Lakes of Albano and Nemi," and concludes that the area was volcanic. Jones completes his description with the characteristic disclaimer that "these are the Ideas that have always occurred upon a Survey of this District without attempting a Natural History, or geographical disquisition" (J,61). His description, however, is not at all what would "have always occurred" with reference to Lake Nemi, the purported location of the sacred woods and the famed ruins of the temple of Diana. On the contrary, Jones depends upon recent scientific discoveries very likely gleaned from Hamilton's writings. Though the above comments are from May of 1777, Jones seems familiar with the Campi Phlegraei in July, 1782 -- two years after his first meeting with Hamilton -- stating in a matter-of-fact way that the Envoy "lent me his Treatise on Volcanoes with the Prints highly coloured by . . . M. Fabris" (J,114). Thus, it is perhaps not surprising that Jones' primary interest in this case seems to be in natural, not classical, phenomena. His depictions of lakes Albano and Nemi are almost as detailed and precise as are Hackert's of the same sites.³⁰ Differences are of degree rather than kind.

Lord Bristol's other commissions for Jones reflect the enthusiasm for natural science in subject matter and the consequent detail of the rendering. In a list of his recent canvases compiled in April, 1779, Jones notes a large "View on the Coast of Baja including M. Vesuvius & ye Islands" for

the Bishop of Derry, to be delivered via Hamilton at a cost of seventy pounds, with the frame (J,87). The commission was specifically to include the natural phenomena of this area of prime scientific curiosity. The incomparable beauty of the scene, it seems, was enhanced by the associations with natural history, as with Fabris' panoramas from the Campi Phlegraei (plates XXX,XXXI; see p.65 above). The necessity of the relation between scientific interest and pictorial detail in such works is vividly captured by Jones's remarks regarding his painting "on a large scale" of the Campi Phlegraei region, purchased by Hamilton in 1783: "Sir William attended me to the study, to see the progress of his picture, & then took me to Paussilippo to make a drawing of a Palm Tree growing there, in order to have it introduced into the View" (J,122). It was not only Hamilton and Bristol who ordered paintings of these areas and phenomena: views of the coast of Baja were executed for Mr. Yorke and Mr. Burdon, a View of the Lake of Avernos for "D'o", and a View of Vietri in the Bay of Salerno for Sir William Molesworth (J,87-88). These were all significant pieces, selling for twenty to seventy pounds each. The scientific associations of the subjects were by no means their only appeal, but an important one so far neglected in the history of 18th century landscape painting.

Thomas Jones became involved in the growing contemporary taste for particularity in landscape painting, but unlike Hackert, he seems to do so unwillingly. Hackert visited Jones in the latter's studio on December 2, 1782 to fulfil Lord Bristol's request that he see how Jones "went on with his [Bristol's] Pictures" (especially the view of Lake Nemi, on

which Jones was working at the time). Hackert, we are told somewhat icily, "was pleased to pay many Compliments on my progressive Improvement in paying due attention to the Detail -- that is to say, minute finishing, which by the bye, was more congenial to his own taste, who like most German Artists, study more the Minutuae than the grand principles of the Art --"(J,117).³¹ The significance of this passage for the understanding of landscape art at this time cannot be overestimated. It emphasizes the importance of detail, establishes the opposition of British landscape to what is identified as a German penchant represented by Hackert, and claims that the study of minutia is to be opposed because it ignores "grand principles", or what Jones could as easily have called the Ideal. There is indeed a clash between putatively opposing conceptions of landscape during the last three decades of the eighteenth century. Representing the Classical, Italianate, or Ideal approach -- which seeks the underlying and supposedly true, principles of the landscape and eschews its insignificant details -- is Jones, the pupil of Richard Wilson, who had "seen and Copyed so many Studies of that great artist, . . . and was so familiarized with, & enamoured of Italian forms, . . ." that the country "of the Latin's seemed formed in a peculiar manner by Nature for the Study of the Landscape-Painter" (J,60,66). On the other side we have Philipp Hackert, painter of minute detail. But both artists claim to be followers of the 17th century Italianate landscapists, and indeed paintings by Hackert and Jones are very similar to one another -- though Hackert's do often demonstrate a more precise and detailed depiction of phenomena -- and in general terms, to their 17th century antecedents.

The opposition is established in the painters' writings more than in their landscapes. Neither Hackert, his major patrons like Hamilton or Bristol, nor even Goethe, Hackert's classically-minded spokesman, perceived any contradiction between the particularity of their purchased landscapes and the tradition of ideal landscape painting. On the contrary, the 17th century landscape is revised at this time to embrace a particularized attention to natural phenomena. Natural history is a major impetus for this change. The landscape style that results -- exemplified first by Fabris, Hackert, and even Thomas Jones -- exists within the mainstream of those artists who saw themselves as the inheritors of the style of Claude, Dughet, and Nicolas Poussin. But arguments or complaints like those voiced by Jones continued to arise.

Charles Greville appears to have shared Jones' opinion of German painters, while at the same time to have desired that art pay attention to nature to a degree in keeping with his own knowledge of natural history. Greville expounds the virtues of this knowledge in the passage quoted above (p. 78 .), and subsequently claims that "even artists are blind" to what can be seen in nature (Morrison, Letter 105). He goes on to demand "the proper selection of nature" required ubiquitously in eighteenth-century art theory, but prefers not to have the philosophers' help with his judgements because, he implies, they teach one "to consider the difficulty of execution as a principal object of . . . admiration, which at once would give to a German the preference to the Italian artist." Here again German artists are accused of missing the important element in art, the Ideal, and of focusing on the mechanical which can, after all, be taught. These opinions

have been left unchanged in the modern art historical criticism of A.P. Oppé, who follows the views of Jones and John Robert Cozens (1752-97) on "the fashionable German professional Philipp Hackert" and his countrymen :³² "Cozens' style and manner are totally different from the dryness, pettiness and niggling detail which Hackert shows in his watercolours and the stilted elegance of his monochromes. Cozens aimed at breadth and simplicity, while Hackert prided himself on the detail which he studied on the spot in his effort to reproduce faithfully the variety of nature, though he thereby confused his planes and obscured the larger lines of the landscape" (O,142). John Robert Cozens' watercolour View of Vesuvius from Portici (Fig.40), for example, does demonstrate a very different emphasis than that found in most of Hackert's work. The composition is simple, allowing Vesuvius and a sister volcano to stand out almost in silhouette. The beauty and quality of John Robert Cozens' work is not in doubt. But what is gained in "breadth and simplicity" is certainly lost in specificity; the characteristics of Vesuvius as a particular natural phenomenon do not appear. Hackert and John Robert Cozens fall on either side of a choice that must be made in any representation between emphasis on the universal or the particular. Oppé notes John Robert Cozens' longstanding "impatience with minutiae", and attributes this aversion to his affinity for the theories of his father, Alexander Cozens (1717-86). In the second paragraph of his New Method of Assisting the Invention in Drawing Original Compositons of Landscape (1785). . the elder Cozens asserted that "composing landscapes by invention, is not the art of imitating individual nature . . . [but] of forming artificial

representations of landscape on the general principles of nature" (O,166). J.R. Cozens probably did adhere to this creed instead of being swayed by Hackert's example, or "succumbing to the demands of a fashion or Patron," as Oppé suggests many did.(O,143). Whether or not artists are ever independent of patrons or, more generally, of the tastes of their time, remains an open question. In this specific case, "fashion" alludes to the "fashionable" Hackert and the demand for particularity. In spite of criticisms then and now, this fashion was upheld by enough patrons and artists to secure a lasting position within the variety of late 18th century landscape styles.

Before suggesting the immediate career of the particular in landscape, and why this characteristic is not an aberration of mainstream landscape depiction of either the 17th or 18th centuries, two additional brief examples of protests against particularity should be noted. French and German as well as British proponents of the landscape genre objected to detail. At the end of the 18th century, for example, the well known French landscape painter Pierre Henri de Valenciennes wrote against those artists "qui s'attachent aux détails et qui s'occupent pas de l'ensemble."³³ Valenciennes' own études (the étude was associated with plein-air painting since De Piles recommended the use of this form to gather information about individual natural phenomena to be used as a basis for finished paintings [see Cours de peinture,]1708 . The étude in Valenciennes' time came to be a more independent form. See Radisich, pp.296ff.) were probably modelled on Hackert's large, plein-air sepias, but again emphasize the "larger lines" of the landscape over the detail. Heinrich Meyer,

Goethe's protégé, included warnings against an inordinate attention to detail in his appreciation of Hackert appended to Goethe's 1810-11 biography. Meyer begins by noting the perfection attained by Hackert in "Prospectmalerei". Art theory has always allowed for perfection within each genre as well as asserting an overall decorum for the hierarchy of the individual arts. Meyer follows this practice, and implicitly contrasts Hackert's detailed landscapes with the even more laudable "poetic" ("dichterisch") form exemplified by the seventeenth-century Italianate masters. Yet perhaps because his abundant praise is immediately followed by the qualification "Prospectmalerei", the reader anticipates a "but" in Meyer's assessment. It is soon delivered: Meyer adds to his approbation of the "artfulness, certainty and care" ["Kunst, Bestimmtheit und Sorgfalt"] with which Hackert's foreground plants are represented the provision that "perhaps the detail here is often greater than is profitable for the painterly effect of the whole," ["Vielleicht ist das Detail Liebe oft größer als es dem mahlerischen Effect des Ganzen zutraglich ist..."(G,120)] though he felt that, of course, one could not ask for greater truth. In his final paragraph, Meyer delivers the essential criticism, one which it seems only just fails to apply to Hackert. If more detail were to be included, the artist's work would become offensive, "dry, and the reproach [that it was] a commonplace, tasteless naturalism would be difficult to avoid" (G,203-04). [". . . Trockenheit und dem Vorwurf eines platten geschmacklosen Naturalismus schwerlich entgehen."] .

Hackert articulates the same theory of art that his detractors claim his paintings forsake in favour of mere

detail in his Ueber Landschaftsmalerei: Theoretische Fragmente (c.1795; reprinted in Goethe's biography). He searches for "das schöne Ideal" (G,209) found in the grand style of the Poussins, Carracci, and Domenichino. "One finds nothing niggling in their composition," ["man findet nichts kleinliches in ihrer Composition"], he says, and concludes directly enough that one must therefore "not search for the truth of Nature in the detail". ["Man muß die Wahrheit der Natur nicht im Detail suchen" (G.213)]. At the same time Hackert asserts that the artist must imitate nature correctly "without altering [its] truth" ["ohne die Wahrheit . . . zu alteriren" (G,208)]. The moot point is the definition of "truthth". For Hackert, the artist must study nature with the naked eye and learn all its parts. He describes his own methods of depicting trees, the importance of rock formations (noting the special character of volcanic materials), and praises Claude's representation of mist. But these details are to be added after the main lines and objects of the landscape (G,211), as Alexander Cozens claims to have done with his "particulars". Hackert believes that a close attention to detail is needed to attain the truth of a landscape, but subordinates this emphasis to the Ideal, drawn from the 17th century. yet for him in practice there is no contradiction between the detailed observation and representation of nature and "das schöne Ideal".

In the Campi Phlegraei, Hamilton directs his readers to the overall system of nature in order to gain an understanding of the beneficial role of volcanic activity. The image of the plough (see above, p.60) captures the essence of

the volcano as a process. During the second half of the eighteenth century, nature as a whole comes to be understood as a process rather than a product.³⁴ Hamilton's investigations of strata indicate the earth's great age and ceaseless dynamism. Process also becomes the new grand theme of that artform most concerned with nature -- landscape painting -- because of the interest in natural history. The pictorial visualization of scientific discoveries must be detailed; at the same time, the exact representation of strata, for example, is a symbol of process. The detail in landscapes by Fabris, Hackert, and others is not trivial or microscopic, but necessarily bound up with the theme of nature as one immense, integrated, dynamic system in which each part's role is now better understood. As a conclusion to this section -- and in anticipation of the historical and theoretical foundations to be supplied in Section II -- I wish at this point to construct an argument about Joseph Anton Koch's monumental Schmadribachfall (Fig.41) which embodies better than any other single painting the notion of an infinitely detailed and interconnected system of nature.

The detailed observation of natural phenomena is spread across Koch's entire canvas: the delineation of the distant mountain faces is no less exact than that of rocks in the immediate foreground. Koch has painstakingly rendered the appearance of rushing water in the foreground, the mist rising from the central cascade, and the seemingly rain-laden grey clouds to the upper right of the waterfall. In short, he has represented the watercycle. The fine detail of the painting illustrates at least two other cycles or processes of transition. Vegetation changes with altitude from the full

deciduous trees in the foreground, through a coniferous belt to only the hint of plant-life on the green-topped rocks surrounding the waterfall, and finally to the barren, snow-capped peaks. Man, too, is placed securely in Koch's structural and cosmological hierarchy: the hunter and barely visible fishermen/shepherds occupy a middle position on the picture surface and in the chain of being, between the spoils of nature which they here enjoy and the empyrean heights of the mountain. The detail of the painting transforms it from a cosmological allegory, which it might have been if painted a century earlier, to a literal apotheosis of nature. The theological terminology is not out of place: Koch's mentor, the artist Asmus Jakob Carstens (1754-98), had remarked that the Alps were comparable in scale and import to Michelangelo's Last Judgment (Vaughan, 1980, p.38). Many late 18th century landscape painters sought explicitly to raise the value of landscape to this monumental level shared by history and religious painting. Valenciennes promoted the "paysage historique" through the use of edifying subject matter and attention to the general lines of nature. Hackert can be seen to have followed a different route, one emphasizing the particularity of landscape and thereby securing a grand theme for this genre through allusion to contemporary scientific understanding of nature as process. Both choices depend upon 17th century Italianate antecedents, and thus continue this tradition of landscape painting. The explicit need to achieve a balance between particular and universal informs all late 18th century landscape painting and theory. Sir William Hamilton's Campi Phlegraei, in its minute examination of volcanic phenomena, is a theodicy for the universal processes

of nature. Fabris begins an evolution in the pictorial realization of this theodicy which is continued by Hackert, and reaches its ultimate visualization as nature turned divine in Koch's Schmadribachfall.

Chapter 3

Footnotes

- 1 Brian Fothergill, Sir William Hamilton: Envoy Extraordinary (London: Faber and Faber, 1969), pp.66-8.
- 2 Walpole to Hamilton, 18 Feb. 1776. In Alfred Morrison, ed., The Hamilton and Nelson Papers, vol.1, 1756-1797 (Printed for private circulation, 1893), Letter 70.
- 3 Very little is known about Pietro Fabris. He was active in Naples during the late eighteenth century, though he was also a British subject. In 1768, Fabris exhibited "'Four drawings of Views in Naples'" at the London Free Society of Artists; in 1772, he showed two views of the "'Posilipo at Naples'" at the Society of Artists of Great Britain, also in London. (See Algernon Graves, The Society of Artists of Great Britain 1760-1791; The Free Society of Artists 1761-1783 Bath: Kingsmead Reprints, 1969; original ed., 1907, p.90). The Nögler and Thieme-Becker Künstler-Lexikons report that views by Fabris were engraved in aquatint (then an experimental technique) by Paul Sandby in London in 1777. It is not the case, however -- as these authorities claim -- that Sandby was the engraver of the CP itself. They were executed by Joseph Guerra. Fabris' Peasants feasting with a view of the bay of Naples, no date, was shown in the 1972 Arts Council of Great Britain exhibit, Lady Hamilton in Relation to the Art of Her time, and is discussed briefly in the catalogue, no.38.
- 4 The text of the Campi Phlegraei, hereafter cited as (CP,p.no.), is identical with that of the 1774 ed. of the Observations, except that Hamilton added a letter (of May 5, 1776) to Sir John Pringle, President of the Royal Society, as an introduction to the CP. Except when referring to this introduction, I shall cite the 1774 ed. of the Observations using the form (O,Letter no.,p.no) when referring to Hamilton's letters, since it is more accessible than the CP.
- 5 From T. Cadell, editor of the Observations, in his preface. Hamilton's 1772 ed. of this work was in great demand in libraries. (Porter, p.99; see below, n.6).
- 6 I am here indebted to Roy Porter's excellent study The Making of Geology: Earth Sciences in Britain 1660-1815 (Cambridge: Cambridge Univ. Press, 1977). Sub. refs. are to (Porter,).

7 In her recent essay entitled "Beauty of the Invisible: Winckelmann and the Aesthetics of Imperceptibility" (Zeit. f. Kunstgesch., 43 Band 1980, Heft 1, pp.65-78), B.M. Stafford has illuminated "the eighteenth century fascination with the root beauty of the hidden, the imperceptible, and the invisible" (75). Professor Stafford discusses "the crucial aesthetic category of the invisible" in Winckelmann's writings, and suggests that the "absense" established by the force of this category "is the subject of Neo-Classical outline drawings" (75). While not disagreeing with these findings, I would point to Hamilton and the artists discussed in the following pages as examples of a concurrent and equally important tendency: the desire to palpably represent phenomena which were coming to be understood by contemporary science.

8 Throughout this section, I rely on Martin S. Rudwick, "The Emergence of a Visual Language for Geological Science 1760-1840" (Hist. of Science, vol.14, pt.3, 1976, pp.149-95). Rudwick goes into much greater detail about the use of visual materials in scientific publications in general than I can in this context. Hamilton, he says, was "exceptional not so much as an observer, but as one who perceived the value and necessity of visual communication" (155).

9 Rüdiger Joppien, Philippe Jacques De Louthembourg, RA 1740-1812 (Kenwood: The Iveagh Bequest, 1973), "Introduction", no page.

10 Hamilton could have undertaken the project as early as 1774, after the enthusiastic reception of the second ed. of his Observations.

11 Pietro Fabris may have used Hamilton's drawings as the basis for his own, though there is no sure evidence to support this speculation.

12 Michael Fried identifies the notion of "absorption" in Absorption and Theatricality: Painting and Beholder in the Age of Diderot (Berkeley: Univ. of California Press, 1980). I am indebted to Professor Fried's outstanding book and to discussions with him for the vocabulary and type of pictorial analysis used in discussing Figs.35 and 37.

13 Porter states that "Landscape had lost its terrors, and was becoming a kind of scientific playground, open to all" (The Making of Geology, p.103). M.H. Nicolson's seminal study Mountain Gloom and Mountain Glory (Ithaca: Cornell Univ. Press, 1959) discusses this tendency. I believe that the CP exemplifies this trend, though it is impossible to discuss its general role more thoroughly here.

14 Trans. W.F. Jackson Knight (Harmondsworth: Penguin, 1959), p.154.

15 Petrarch, The Ascent of Mont Ventoux, trans. Hans Nachod, in Ernst Cassirer et. al., eds., The Renaissance Philosophy of Man (Chicago: Univ. of Chicago Press, 1948), pp.36-46. I have chosen this example because of its eipstolary form, echoed by Hamilton (though he does not mention Petrarch).

16 It is also probable that Knight knew Hamilton's Observations, published in 1772 and 1774. Hamilton's description of the scene from Mt. Etna in Letter IV seems to be a model for Knight's version of the same vista. Hamilton writes: "Soon after we had seated ourselves on the highest point of Etna, the sun arose, and displayed a scene that indeed passes all decription. . . . The horizon lighting up by degrees . . . we saw the whole island of Sicily . . . as if we had been looking on a map. The island of Malta is low ground, and there was a haziness in that part of the horizon . . ." (O,IV,74-5). Knight: "As the sun rose, the scene was gradually illuminated, the plains and mountains, lakes and rivers became steadily more distinct until they attained a certain stage of clarity, whereupon they faded, likewise by degrees, into the mists which the sun had drawn up." (Knight's Sicilian Diary, segments translated from Goethe's version of the original by Brian Miller, in N. Pevsner, "Richard Payne Knight" The Art Bulletin, 31, 1949, pp.293-320, p.318.

For a detailed discussion of Knight's trip to Sicily with Hackert and Gore, see Claudia Stumpf, "The Expedition to Sicily" in M. Clarke, N. Penny, eds., The Arrogant Connoisseur: Richard Payne Knight 1751-1824 (Manchester: Manchester Univ. Press, 1982), pp.19-31.

17 Knight's Diary survives in Goethe's translation entitled "Tagebuch einer Reise nach Sicilien", and is part of the latter's 1810-11 biography of Philipp Hackert. The original may have come to Goethe via Hackert, and has been rediscovered by Stumpf.

18 Walter J. Hipple, "General and Particular in the Discourses of Sir Joshua Reynolds: A Study in Method" (Journal of Aesthetics and Art Criticism, vol XI, March 1953, pp.231-471), p.234.

19 John Hayes makes this point in Part I of his four-part article "British Patrons and Landscape Painting" (Apollo, July 1965), p.44. Hayes suggests that the prejudice against contemporary painters applied most of all to those of the patron's native country (Part IV, Apollo, April 1967), p.254. Hamilton is a notable exception to both of these points.

20 Clark's catalogue of Hamilton's pictures is reproduced as an appendix in Fothergill's Sir William Hamilton. The collection is discussed by Fothergill, pp.297-99, and by O.E. Deutsch in "Sir William Hamilton's Picture Gallery" (Burlington Magazine, Feb., 1943, pp.36-41).

- 21 This information comes from the Welsh landscape painter Thomas Jones, who is considered more fully below. Jones's lengthy and informative Memoirs are published in The Walpole Society, vol. XXXII, 1946-48, with an introduction by A.J. Oppé. Subsequent references appear as (J, p.no.).
- 22 See Wolfgang Krönig's discussion of the works from the 1770's in the article referred to below, n.25.
- 23 See Goethe's lengthy biography, Philipp Hackert, 1810-11. Subsequent references are to Goethes Werke (Stuttgart: J.G. Cotta'schen, 1868), BD.26, pp.43-224, in the form (G,p.no.). Goethe says that most of the biography came from Hackert himself. He also suggests that Hackert made drawings for the CP. (G,57). Wolfgang Krönig suggests the same in "Eine Italien-Landschaft des 18. Jahrhundert im Deutschen Ärchaologisches Institut zu Berlin: Philipp Hackerts Ansicht der Solfatara bei Neapel" (Berlin: Deutsches Ärchaologisches In., 1964), p.8, and compares Hackert's view of Monte Nuovo (Krönig, Abb.2) with that of Pl.XXVII in the CP. It may well be that both Hackert and Fabris supplied drawings for Hamilton's book, though only Fabris is mentioned in the CP and in Hamilton's correspondence.
- 24 See Wolfgang Krönig, "Vesuv-Ausbrüche von 1774 und 1779 gemalt von Philipp Hackert" Medicinae et antibus: Festschrift Wilhelm Katner, (Düsseldorf: Trietsch Verlag, 1968), pp.51-54.
- 25 Brinsley Ford asserts that Hackert's works "strike us as being rather dull pastiches of Claude" in his article "The Earl-Bishop: An Eccentric and Capricious Patron of the Arts" (Apollo, June 1974, pp.426-34), p.429. While some of Hackert's work is certainly formulaic and uninspired, much is quite the opposite, and in its connection with the growing particularity of much late eighteenth-century landscape, it holds an important place in the history of this genre.
- 26 See Krönig's complete discussion of this painting in his article cited above, n.24.
27. Abundant information on these developments can be found in the following: David A. Kronick, A History of Scientific and Technical Periodicals, 2nd ed., (New Jersey: Scarecrow Press, 1976); Walter Schatzberg, Scientific Themes in the Popular Literature and the Poetry of the German Enlightenment 1720-1760 (Bern: Herbert Lang, 1973). See my discussion of these themes in Section II, below.
- 28 Brian Fothergill, The Mitred Earl: An Eighteenth-Century Eccentric (London: Faber and Faber, 1974), pp.30-31. The Giant's Causeway was frequently mentioned in the dispute over the nature and origin of basalt. See Martyn Anglesea and John Preston, "'A Philosophical Landscape'": Susan Drury and the Giant's Causeway" (Art History, vol.3, Sept. 1980), pp.252-74.

- 29 Plate IV in this publication shows the View of Lake Nemi with the date of 1772. Jones states on p.110 that he began the painting in Feb., 1782.
- 30 Compare Jones's Nemi with Hackert's L'ago d'Averno (1794), reproduced in Fritz Novotny, Painting and Sculpture in Europe 1780-1880, Pelican History of Art Series, (Harmondsworth; Penguin, 1971), p.73.
- 31 One connotation of "finish" in the eighteenth century was "to perfect finally or in detail" (OED). Jones's remark, then, refers to the detail of a painting -- the way it was executed and the amount of visual data included -- as well as to the type of "finish" or varnish applied. Both meanings apply to Hackert, though his little known study Ueber den Gebrauch des Firnis in der Mahlerey, translated from the Italian by F.L. Reischel (Dresden: Waltherischen Hofbuchhandlung, 1800), dedicated to Sir William Hamilton, deals only with the technical aspects of varnishing and restoring canvases.
- 32 O,110. Oppé accepts the British artists' censure of the Germans without much critical investigation in his introduction to Jones's Memoirs and in his important study Alexander and John Robert Cozens. It is also worth noting that Jones and J.R. Cozens were competing against Hackert for commissions, usually without much success. Payne Knight and Charles Gore have nothing but praise for Hackert.
- 33 Valenciennes, Elémens de perspective pratique . . . (Paris, 1800), cited in Paula Rea Radisich, "Eighteenth Century Landscape Theory and the Work of Pierre Henri de Valenciennes", p.489. Valenciennes here refers to what these artists find appealing in Gessner and other German authors. The relation of particularity to eighteenth-century German art theory is significant, and will be pursued in Chapter 5, below.
- 34 Northrop Frye applies this distinction between product and process to later eighteenth-century English literature which, he argues, demonstrates the latter quality. See "Towards Defining an Age of Sensibility" (ELH,23,1956, pp. 144-52), p.145.

Section II: German Natural History and Art Theory in the Late 18th Century

In Section I, I attempted to establish and describe the characteristically German propensity for depicting the detailed, specific, and scientifically topical aspects of nature in their landscapes, that is, its particularity. Close observation of nature was not unique to the late 18th century, but the emphasis on the first element in the ever-present particular-universal relation¹ was new, and, as I showed in the last chapter, noticed by contemporary artists. In this section I will consider the changing relation between particular and universal in natural history and art theory. Neither component is new, yet again there is a growing concentration on particularity, one which, I submit, encouraged an analogous emphasis in landscape painting. Because my approach is thematic, many thinkers and issues central to late 18th century science and art theory are excluded altogether, and an inclusive account of those individuals and questions which I do address is not necessarily forthcoming. But what has been sacrificed in thoroughness makes possible the much-needed attention to specific connections between natural history, art theory, and landscape depiction which follows in Section III. In this Section, then, the interest in particularity will be taken up largely without reference to artists or works of art. Finally, I have used two main criteria in choosing the figures dealt with below: (1) their representativeness of contemporary trends, and hence their potential for affecting other areas of culture (e.g. art); (2) their active study of both natural history and art theory. In the interests of (1), I touch on the writings of thinkers who do not qualify under (2). Yet the combined enthusiasm for

natural history and art theory is a salient feature amongst writers of this period, and remains my emphasis. Three of the most notable and influential men of the late 18th century -- Herder, Kant, and Goethe -- were equally involved in science and art theory. Because Herder's most significant writing in art theory -- the Viertes Wäldschen -- was not published until after his death, and thus remained unknown until the mid-19th century, I will discuss only his contributions to natural history. The work of Kant and Goethe therefore comprises the core of the next two chapters.

CHAPTER 4: Seeing The Immediate: Natural History and Natural
Historicism in Germany

The 1774 and 1811 editions of the Adelung Grammatisch-Kritisches Wörterbuch der Hochdeutschen Mundart define "natural history" as "the specification and the description of natural matter or that from the three kingdoms of nature; Historia naturalis." ["das Verzeichnis und die Beschreibung der natürlichen oder zu den drei Naturreichen gehörigen Körper; Historia naturalis."] This formulation itself limits the term to the description of natural phenomena, and is thus an example of what Immanuel Kant, writing in the 1770's, saw as a contemporary confusion of terminology. "We commonly take the meaning of the description of nature and the history of nature in the same sense", he says,² whereas "if one describes the occurrences of the whole of nature as they have been through all time, then, and only then, would one deliver a correct history of nature."³ Yet Kant acknowledges the inclusiveness of the "adopted name"⁴ natural history in the late 18th century. Consideration of nature as it was was not often separated from that of nature as it is, nor were the metaphysical, cosmological aspects of a natural philosophy excluded from the writings discussed in this chapter. Studies as different as Herder's Ideen -- which elaborates the entire history of mankind -- and Abraham Gottlob Werner's Kurze Klassifikation -- which was designed as a mineralogical fieldbook -- were considered as natural history. Geology and the life sciences, both in their early development and highly active, best demonstrate the increased emphasis on particularity. I shall focus on three themes which illuminate this change -- and from which derived scientific motifs of import

to contemporary landscape depiction -- using primarily examples from geology, biology, and botany: (1) empiricism -- the promotion of observation and the visual; (2) the "Great Chain of Being" -- plenitude, process in nature, and exploration; (3) nature made historical. My own general comments under each heading are augmented by contemporary writings.

Though the 18th century is often deemed The Age of Reason, its Rationalist tendencies went hand in hand with a strong Empiricism.⁵ The belief in the power of human reason can even be seen to entail concrete experimentation. As Cassirer says of Newton's scientific attitude: "the structure of the cosmos is no longer merely to be looked at, but to be penetrated" (11); (though, as I argue below, this penetration is often visual). "Empiricism and rationalism touch in most important investigations,"⁶ then, and one significant result is the characteristic 18th century abhorrence, at least in theory, of speculation. Most crucial here are the changes which for Isaiah Berlin result in "the triumph of the concrete over the abstract; the sharp turn toward the immediate, the given, the experienced and, above all, away from abstractions, theories, generalizations, and stylized patterns . . . [the] restoration . . . of secondary qualities of the senses to their primacy."⁷ The volume and character of scientific publication illustrates the increase in the empirical study of nature more tellingly than do individual statements. Because there is, I submit, a direct link between this empirical scrutiny of nature and the growing importance of particulars, Kronick's documentation of the explosion in scientific literature -- and the spread of the empirical doctrine -- mentioned above (I, ³~~11~~, p.38 n.), deserves elaboration.

Large groups of "substantive" journals "which were devoted principally to the dissemination of established ideas", says Kronick, "reflect the growing popular interest in the natural sciences which characterizes the period of the Enlightenment."⁸ The staggering amount of published scientific material practically ensured the late 18th century readers' familiarity with contemporary scientific ideas. Albrecht von Haller (1708-77), the renowned Swiss physiologist and poet, alone published about 10,000 scientific articles and reviews.⁹ The number of outlets for scientific ideas was especially high in the German states because of the contemporary enthusiasm for learned discourse in the native language, a large, relatively well-educated middle class, and the proliferation of regional publications which resulted from the lack of political centralization (Kronick; 89,185). The entire range of printed information was accessible and of interest to a large number of readers: "the 18th century was still primarily an age of generalism in which every educated person felt responsible for the whole range of art, science, [and] philosophy." The "scientist" too was an amateur, "was not yet separated . . . from the rest of the educated public" (Kronick; 94,279). For landscape depiction, perhaps the most consequential feature of this broadly empirical involvement with nature was the premium put on observation and the visual. The heritage of these new values is clear: the "return of emphasis to the perception of the world . . . is related to the Empiricist model of the mind -- no ideas are innate, all arise from sensation and reflection."¹⁰ Direct involvement with the natural world becomes requisite for understanding. The particular elements which are thus made more noticeable

(the sensations of concrete things) are brought into new relations with general ideas about nature (which, to continue Stafford's formulation, have arisen through reflection).

The writings of Johann Gottfried von Herder (1744-1803) can be employed as a test case in measuring the degree to which the empirical method and mode of thought informed all areas of learning in the late 18th century. Herder was a polymath with a distinctly speculative outlook. As well as numerous works in the philosophy of language and in religion, he wrote four important tracts on aesthetics: Über die neuere deutschen Literature, Fragmente (1766); Kritische Wälder (1769; the first Wäldchen takes up Lessing's Laocoön, the second, third, and fourth discuss the Theorie der Schönen Künste und Wissenschaften (1744) of Friedrich J. Riedel (1742-86)). The important Viertes Wäldchen was not published until 1846; the Plastik (1770 and 1778, discussing sculpture); and the Kalligone (1800, a critique of Kant's Kritik der Urteilskraft (1790)). But Herder became discontent with the speculative course of aesthetics. In 1769, yearning it seems for more concrete studies, he turned much of his energy to natural history.¹¹ His research culminated in the Ideen zur Philosophie der Geschichte der Menschheit,¹² in preparation for which he "had read with superhuman acquisitiveness almost every book available in the field of the life sciences" (Clark; 302). This lengthy book is a synthesis of contemporary knowledge; it was also highly popular, and is thus an ideal focal point in the present study.

Herder asserts in the Preface to the Ideen that metaphysics must always be corrected with "experience" (ix). Metaphysics, he says later, "considered in itself . . .

affords not a single perfect and essential idea, not a single intrinsic truth" (234). Concrete experience was essential, and fostered -- even in a generally speculative book like the Ideen -- a greater concern for particular nature than had been demonstrated earlier, as well as a demand for visual evidence.¹⁴ "To Nature," says Herder at the outset of Ideen, "the grain of sand is not of less value than an immeasurable whole" (2). Indeed, "the plastic power operates in the minutest particle, as in the whole" (63). Herder shows his indebtedness to Leibniz in these and many other passages. The part -- the particular -- is important in its relation with the universal: it is a monad, a complete expression of the universe, and therefore deserves attention. In Leibniz's words, "this connection of all created things with every single one of them and their adaptation to every single one, as well as the connection and adaptation of every single thing to all others, has the result that every single substance stands in relations which express all the others. Whence every single substance is a perpetual living mirror of the universe."¹⁵ But Herder deals much more concretely with the particular than does Leibniz. "In language, in history, in aesthetics . . .", in short, in the "historicist" approach he originated, "Herder is always concerned with the . . . uniqueness of the individual object", whether natural phenomenon, cultural artefact, or historical epoch.¹⁶

Though he was not a practising scientist, Herder knew of and drew on the contemporary developments in the life sciences, especially in the early 1780's when he collaborated with Goethe in Weimar and wrote the Ideen. Partly through Goethe's direct encouragement, and partly, I think, from his

general contact with the natural sciences, Herder became more interested in vision as his studies progressed. Goethe's visual acuity has been contrasted with Herder's auditory proclivities (Clark; 429, and by Goethe himself), but in the Viertes Wäldschen -- written in 1769 at the time of his break with speculative aesthetics -- Herder "proposed that the science of optics should be made the basis of a new aesthetics of vision" (Nisbet; 155). The need for visual evidence does inform the Ideen. When attempting to understand God's place on earth, for example, Herder suggests that one should not seek "an angel of Heaven, a creature [one's] eye has never see" (2). In a striking passage on global geography, Herder desires a map, visual evidence and explanation: "what a beautiful and instructive physical geography of the Earth would the inquirer into the history and natural philosophy of man have before him at one view!" (25). The immediacy and seeming self-sufficiency of the eyes' report figures even more strongly in Goethe's scientific endeavours, to which I shall turn shortly.

This brief look at Herder's Ideen is meant to underline the changing relation between particular and universal which stemmed from the greater contact with particular nature encouraged by Empiricism. "The multifarious variety, that actually exists on our Earth, is astonishing" for Herder; "but still more astonishing is the unity, that pervades this inconceivable variety" (9). Part and Whole can be realized only through one another.¹⁷ It may be that unity, the universal value, is ultimately more important to Herder. But the particular has risen in significance, and will be sought more and more in all aspects of late 18th century culture, and

especially in aesthetics and art. Herder sees art as a synthetic process, the distillation of "Eins aus Vielem" (cited by Fugate;14). From the Ideen comes the dictum "to effect many things in one, and to combine the greatest variety with an unconstrained uniformity: [in this] consists the height of beauty" (10). The consideration of the particular in this definition may not be new,¹⁸ but its integral role as the vehicle for the universal in experience -- and especially in art, as I shall argue further in Section III -- is certainly of greater import than its former status as a mere logical necessity in the universal-particular scheme.

Herder's holistic world-view, his concrete perception of the inter-relatedness and relativity of all phenomena, was shared by Johann Wolfgang von Goethe (1749-1832). The relation of part and whole is the guiding concept for both men. For Goethe, "the universal and the particular coincide: the particular is the universal appearing under different conditions." [Das Allgemeine und das Besondere fallen zusammen: das Besondere ist das Allgemeine, unter verschiedenen Bedingungen erscheinend.]¹⁹ "If you would draw benefit from the whole," he says, "you must search for [it] in the smallest part."²⁰ Goethe's intense empirical study of nature occasioned his keen observation of particulars, as well as the value put on visual evidence. At the same time, he sought to comprehend the principles by which the multiplicity of nature was generated and unified, and thus his scientific method was at once bound up with natural phenomena and the abstract.

Goethe's far-reaching scientific activity began in 1777 when he was put in charge of the Ilmenau mines near

Weimar. Around the same time, he began studying botany according to the Linnaen system.²¹ Goethe thus brought a decade of serious investigation to his observation-filled Italian Journey of 1786-88. His research in geology, botany, morphology, physiology, and optics intensified through the 1790's and was maintained until his death. Goethe's approach always involved close empirical observation of nature: "one's highest duty in observing phenomena is to trace accurately every condition under which a phenomenon makes its appearance and to aim at observation of as many phenomena as possible" ("Influence of the New Philosophy", p.229). Like Bacon, Goethe seeks to enlarge his general knowledge of nature,²² rather than confirm a specific hypothesis by experiment. "Nothing can be more dangerous than the attempt to confirm a theory by experiments," he says, since all variables are constantly changing ("The Objective and Subjective Reconciled by Means of Experiment", 1792-93, p.223). Specific knowledge is always generalized: empirical observation facilitates the abstraction of a "law" which in turn may be used for future discoveries. In Goethe's words, "after observing a certain degree of constancy and logical sequence in phenomena, I derive an empirical law and prescribe it for future phenomena" ("Experience and Science", 1798, p.228). Thus, Goethe saw his mature scientific method as proceeding "from the whole to the particular, from the overall general impression to the observation of parts."²³ Yet he characterized his thinking in general as "objective" in the sense that it is "never divorced from objects" ("Anthropology", 1822, p.235). The more one reads Goethe, the clearer the interdependency of part and whole in his thinking becomes. Neither element is truly

antecedent, in spite of his claims. Even his ideas of various Urphänomen remained particular: the Urpflanz was, at times, concrete for Goethe -- "the sensuous form of a supersensuous plant archetype" -- many years after he had ceased to believe in the material existence of this fundamental plant ("The Author Relates the History of His Botanical Studies", 1831, p.162).

Goethe's acute ocular sense has been emphasized by many commentators. His precise vision both derived from and supported his research in natural history, and is symptomatic of the faith in and demand for visual evidence discussed in Section I, Chapter 3 with regard to Fabris' illustrations for Hamilton's Campi Phlegraei. Goethe believed that he could see, in a profound sense, how nature worked. What he saw was based upon empirical study, but augmented through ideation, as outlined above, so that what is seen is not merely superficial. It is just this sort of visualization -- the embodiment of extensive scientific knowledge and implication in the particular phenomena represented -- that was characteristic of the late 18th century landscape of concern in this context. To a significant extent, this visualization informed what artists say, and how their products were seen. For Goethe, the "idea" -- say, of the Urlandschaft he perceived around Naples -- must be possessed by the observer, and this possession must come from immersion in nature. With the idea, the individual "easily trains himself to look beyond outer appearances" (Meuller, p.115). When Goethe tries to explain the Urpflanz and theory of plant metamorphosis to Schiller by means of a drawing, in 1794, Schiller comments, "that is not experience -- it is an idea." Goethe's reply indicates the

depth of his vision: "I am glad to see that I have ideas without knowing it -- indeed, that I see them with my very eyes" (Magnus; p.70). Vision simplifies, unifies the manifold diversity of experienced nature; it solves the ever-difficult problem of the one and the many. For Goethe, this is the advantage and the truth of seeing, since for him nature is essentially unified and simple. It is also the advantage of the visual arts. Discussing his famous theory of plant morphology, Goethe states that "this division of the leaves is subject to a law which is easy to demonstrate visually but difficult to express in words" (102). With his illustrations to The Metamorphosis of Plants, he undertook "to present to the physical eye, step by step, a detailed, graphic, orderly version of what [he] had previously presented to the inner eye conceptually and in words alone" (97). In general, "drawing was not an end in itself but a means to focus the eye on realities which must be the same for the artist, poet or scientist."²⁴ And the drawing or painting -- the visualization -- was primarily literal rather than symbolic or allegorical. (By "symbolic" or "allegorical" here I understand an entity that stands for other entities and is itself transparent; by "literal", an entity that is seen for itself, though perhaps also as representative of other entities, qualities, or values.) Goethe makes a similar distinction in his Maxim #435:

There is a great deal of difference between a poet seeking the particular for the universal, and seeing the universal in the particular. The [former] gives rise to Allegory, where the particular serves only as instance or example of the general; but the other is the true nature of Poetry, namely, the expression

of the particular without any thought of
or reference to the general. If a man
grasps the particular vividly, he also
grasps the general . . .

As Goethe's answer to Schiller quoted above and Maxim 435 indicate, the universal was seen in the particular, not through it: "to realize everything factual as being itself theoretical is [essential]. The blue of the sky reveals the fundamental law of chromatics. Look not only for something behind the phenomena, for these are themselves the theory" (Maxim #575). This fact of vision has implications for the execution and perception of landscape depictions, as I showed in the context of Fabris' scientific landscapes (I,3), and will discuss in more detail in Section III.

I have argued that the widely-held empirical attitude towards nature in the late 18th century demanded the observation of natural phenomena, and that observation focused on the particular in an especially visual way. This tendency may, in the broadest sense, result from the rise of the ocular sciences from the 17th century, which left "sight with an almost exclusive privilege, being the sense by which we perceive extent and establish proof"²⁵ by the late 18th century. Two further illustrations of this sequence underline aspects of visual awareness that were instrumental in landscape depiction: the connection of vision with the unity or system of nature, and the importance of visual documentation in scientific publications.

Immanuel Kant suggested in 1757 that the science of geography seeks "the natural condition of the earth . . . not with the completeness and philosophical exactitude which is the business of physics and natural history, but with the reasonable curiosity for the new of a traveller who seeks out

everywhere what is noteworthy, peculiar, and beautiful, and compares his accumulated observations according to some plan."²⁶ Kant -- one of the first to think systematically about and lecture on geography -- perceived the need for unified experience at the empirical level, a "system" of perceived natural phenomena. Such an organization cannot be arbitrary (as Linnaeus's botanical system was thought by many to be),²⁷ but "must proceed from the empirically given, guided by [reflective] judgment" (May; 142. See also p.143). Kant focuses on this "arrangement of all particular empirical laws into a system" (May; 141) in the Kritik der Urteilskraft, which I will discuss in the following chapter (II,2). For the traveller in the passage above, vision creates the required system. Goethe, too, believes in the unity of nature, in Urphänomen for example, which provide "a rule to which thousands of details must conform" ("The Author Relates the History of His Botanical Studies", 1831, p.149). For him, the idea of a "Natural System [is] a contradiction in terms. Nature has no system; she has, she is life and its progress from an unknown centre towards an unknowable goal" ("Problems", 1823, p.116). But the idea of an organizing principle is the same for Goethe and Kant, and both men assert the primacy of vision. Goethe realized that "it would take a lifetime to gain a panoramic view and to bring order into the infinitely free vital activity of one single natural realm" ("Genesis of the Essay on the Metamorphosis of Plants", p.166; emphasis mine). The visual metaphor in the lifelong task he knowingly accepted is no accident.

The German poet, critic, and natural historian Rudolf Erich Raspe (1737-94) provides a further example of the con-

nection between scientific investigation and pictorial representation considered above in Hamilton's Campi Phlegraei. In fact, Raspe corresponded frequently with the British Envoy, and even published an essay as a supplement to Hamilton's Observations in 1776.²⁸ Prime evidence of Raspe's understanding of the need for visual resources in scientific treatises is found in his 1775 letter to a prospective publisher in Cambridge. Raspe supported himself in England by translating scientific works, including his own Latin and German originals. In an enlarged, English version of his Specimen Historiae Naturalis Globi Terraquei (1763) proposed by Raspe, he suggests the inclusion of "a great number of excellent drawings of minerological maps, mines, Volcano's, Basaltes and remarkable fossile curiosities, which [he could] procure", totalling 24 plates (Raspe; xciii). The first edition had only two plates of mineral specimens. Raspe promotes his work with claims of empirical rigor: he "spared neither pains nor travels nor expenses to observe nature [him]self and to improve [his] science by the great many valuable discoveries made abroad" (Raspe; xcii). It is this amelioration of his qualifications and abilities that Raspe wants to illustrate, to make visible. The modern editors of the Specimen claim that "Raspe lacked the required first-hand geological knowledge to accomplish original research" (Raspe; xxxv). He was more an historian, drawing on ancient and contemporary findings, than an observer. But this oddity actually serves to define the implicit requirements of late 18th century science. Raspe clearly realized that he must seem to be an empirical observer, and that visual documentation of his findings was desirable.

The penchant for the empirical observation of nature was reinforced by the effects of what has come to be known as the "Great Chain of Being" and its attendant notions, the "plenitude" and "continuity" of nature.²⁹ As A.O. Lovejoy has shown, this nexus of ideas is one of the most potent in all of Western intellectual history. One of its more salient effects was the focusing of attention on the earth, a focus which in part occasioned the birth of biology and geology.³⁰ I will give a brief description of the historical development of the "Chain of Being", "plenitude", and "continuity" as a propaedeutic to a consideration of their import for natural history.

The idea of "plenitude" stems from Plato's notion of the Good as that which is complete and self-sufficient. If the Good is equated with God, then the world is understood to be as perfect as its creator. Perfection is equated with completeness. Therefore God, to be perfect, must create all that can be. This fullness is the essence of plenitude. In the history of ideas, plenitude was drawn out to also include "any other deductions from the assumption that no genuine potentiality of being can remain unfulfilled, that the extent and abundance of the creation must be as great as the possibility of existence and commensurate with the productive capacity of a 'perfect' and inexhaustible Source, and that the world is the better, the more things it contains" (Lovejoy;52). An immediate logical difficulty with Plato's reasoning leads to Aristotle's modifications and to the advent of the "Great Chain of Being". If Plato's God is self-sufficient, final, complete, why did he create, since the act of creation implies dependency. God is at once immanent

and transcendent, or, as Lovejoy suggests, there are two Gods, one of "otherworldliness", one of "this-worldliness". For Aristotle, God can only be a final cause, an independent deity. Aristotle sees earthly life unfolded in a measured gradation, in complete continuity: "I call two things continuous when the limits of each . . . become one and the same. . . ." (Metaphysics, XI, 1069a, 1.6-7. Ross trans.). Aware of the numerous different effects on natural phenomena, Aristotle did not himself arrange organisms in an ascending order. But any arrangement of creature "manifestly gave rise to a linear series of classes" (Lovejoy; 56). The minuteness of gradations posited by Aristotle made this a continuous chain without precise delineations between the links. To cite Lovejoy,

The result was the conception of the plan and structure of the world which, through the Middle Ages and down to the late eighteenth century, many philosophers, most men of science, . . . indeed, most educated men, were to accept without question -- the conception of the universe as a "Great Chain of Being", composed of an immense, or . . . of an infinite, number of links ranging in hierachical order from the meagerest kind of existents, . . . up to the ens perfectissimum. . . . (59)

Aristotle's Chain of Being was easily conflated with Plato's plenitude: if there is a possibility for a species to exist between two others, it must be there, otherwise creation and the creator would not be perfect. Leibniz -- who believed in the Chain of Being and its implications, and who introduced these ideas most directly to the 18th century German thinkers focused on in this section -- derived from this combination of ideas his famous dictum that "Nature makes no leaps". In his Allgemeine Naturgeschichte und Theorie des Himmels (1755), Kant

provides a typical formulation: "Nature works here as elsewhere by insensible gradations; and in passing through all stages of change it connects remote qualities with those that are near, by means of a chain of intervening members."³¹

An early entreaty to observe nature closely came from the alliance of the Chain of Being and religious values. From the sixteenth through the mid-18th century, physico-theologies (also called natural religions) sought the proof and characteristics of God's existence in the evidence of His creation. Observation of nature was seen as worship, as a devotional requirement. So widespread was this connection of worship and empirical observation that the "naturalist" was defined in the Adelung dictionaries of 1774 and 1811 as "a person who considers [nature] in the natural practice of his duty to God [and] for sufficient communion with Him. ["Eine person, welch die natürliche Übung der Pflichten gegen Gott für hinlänglich zu einer Gemeinschaft mit demselben hält.]" Robert Boyle, to cite only one of innumerable examples, states in 1774 that "so far is God from being unwilling that we should pry into His works, that by diverse dispensations He imposes on us little less than a necessity of studying them" (cited in Porter, p.69). Newton defends his theories by appealing to the same principle: "my text commends God's works, not only for being great, but also approves of those curious and ingenious inquirers, that seek them out."³² The aim of all science until the later 18th century is to find traces of God's excellence in nature and natural law. This requirement "can be fulfilled only if the connection between the individual and the whole . . . is looked for in a hitherto untried manner . . . [that of] exact measurement" and observation of

nature (Cassirer;42). The principle of continuity, underwritten by theology, promoted the search for missing links in the Chain of Being. Such scientific exploration proceeded, too, from the notion of plenitude: any gaps which seemed possible in nature could not exist, but were to be "filled" with a discoverable entity. And the uncovering of a "new" individual glorified the perfection of creation. The specifically religious connotations of scientific discovery were gradually transmuted into an idolatry of independent nature shared by many by the end of the 18th century. But the efficacy of plenitude, continuity, and the Chain of Being as ideas was maintained. Goethe's discovery of the intermaxillary bone in man in 1784, for example, depended completely on his belief that it must be there because nature's pattern is one of continuity.³³ As a means of prediction, then, the Chain of Being stood behind the empirical exploration of particular nature.

Also occasioned by this religious interest in nature -- and also of import for the interpretation of contemporary landscape depiction -- is the placement of man in the scheme of nature. Though divergent opinions were certainly expressed, Herder characterizes the generally accepted view: "The present State of Man is probably the Link of two Worlds" (Ideen: heading of Chapter VII). The ladder of telluric ascension rises to man; the principles of continuity and plenitude posit the extension of this chain through the angels to God. Man's position as the Mittelgeschopf (middle creation) has anthropological, social, and even aesthetic implications. "We fancy ourselves independent," says Herder, "yet we depend on all nature: implicated in a chain of incessantly fluctuating things, we must follow the laws of its permutation" (436). "All

beauty and perfection of order lie in the midst of two extremes; the most beautiful form of reason and humanity must find its place in the temperate middle region" (441). The geographical metaphor indicates clearly the important connection between scientific and aesthetic values at this time. Thomas Saine states suggestively in a recent article that "such developments in the public appreciation of science and the stress on the observation of natural phenomena in order to ascertain God's design in the Creation should have played some role in the evolution of an aesthetic attitude toward nature, insofar as one concentrated on what could be called the 'beauty' or 'majesty' of the individual part of nature or its setting."³⁴ I have discussed in the concrete some of the attitudes in natural history which did foster just such an evolution, and singled out particularity as the predominant locus of change. I will add several more details concomitant with the Chain of Being here.

The fullness of the world was a direct correlate of the principle of plenitude, and in turn established the diversity of nature as a value in itself. The greater the multiplicity of creation, the greater God was seen to be. For Kant "the infinite space [of the cosmos] swarms with worlds, whose number and excellency have a relation to the immensity of their Creator" (Allgemeine Naturgeschichte, p.41). Leibniz viewed the boundless manifold of creation as the mirror of Divine Wisdom: "the means of obtaining the greatest possible variety, together with the greatest possible order . . . is the means of obtaining as much perfection as possible" (Monadology, §58). Beginning from this cosmological-theological point, observers of nature sought the variety -- the differ-

ences -- which would make the fullest possible whole. While the unity of creation remained in the philosophical and epistemological background, the increasing secularization of natural history in the 18th century directed more and more attention to the individuals which constituted variety. This trend is exemplified, I submit, by the tremendous increase in empirical discovery in general witnessed by the later eighteenth century. The unity of nature remains important, but now more as a ground against which nature's particularity stands out.

The plenitude of nature became an explicit aesthetic value at this time. For Leibniz, beauty is defined as unity in diversity; for Herder, "the greatest variety with unconstrained uniformity is . . . the height of beauty." Plato's conception of perfection as completeness stands behind these formulations. Nature comes to be seen as beautiful in this way, and God is left out of the picture more and more as the 18th century proceeds. Diversity, variety, and particularity are valued aesthetically in themselves. A major conceptual shift in the later part of the century alters the understanding of the Chain of Being, plenitude, and continuity. What was generally understood as a static hierarchy must -- because of the very scientific discoveries this conception encouraged -- be seen as dynamic.³⁵ The Chain of Being becomes temporalized.³⁶

The Chain of Being as discussed so far -- and as it was envisioned until the mid-18th century -- did not admit change. The perfect God had created completely, by definition. But empirical evidence gleaned by natural historians pointed to dramatic alterations on and in the earth. Fossil remains indicated that species once living had disappeared,³⁷ and geologists

such as Hamilton were discovering geological formations not present at the time of Eden or the Noachian Deluge. These and many other similar discoveries lie behind Kant's assertion that "observation and insight into the constitution of nature could never justify us in the objective assertion of the law . . . of the continuous gradation of created beings . . . the steps of this ladder as they are presented to us in experience, stand much too far apart."³⁸ By 1787 when Kant wrote these lines, Leibniz's rule that "Nature makes no leaps" was widely doubted. In fact, Kant's statement looks back at least thirty years to his own somewhat poetic perception of change in nature: "she proves her riches by a sort of prodigality which, while certain parts pay their tribute to mortality, maintains itself unimpaired by numberless new generations in the whole range of its perfection" (Allgemeine Naturgeschichte, p.138). The original concept of the Chain of Being had entailed that all possible species must exist always and at once -- this was the definition of the creator's perfection which seemed less and less plausible. But this theoretical weakness was solved -- for a time -- with the conceptual resources inherent in the idea of the Chain of Being. On the theoretical level, it is again Leibniz who provided the necessary answers drawn on in the late eighteenth century. He proposed that the principle of plenitude be seen as a continual advance rather than a static achievement, and that it do so by embracing extended spans of time.³⁹ Thus, taking the implication of Leibniz's theory, the activity of striving after perfection, rather than the attainment of the (unreachable) end, became perfection itself for many around 1800.⁴⁰ Nature was now seen by many as an active, ever-changing process.

Herder and Johann Friedrich Blumenbach (1752-1840, who pioneered the study of comparative anatomy in Germany and who was a friend of Kant, Goethe, and Herder) indicate the radicality of viewing nature as process. As an active scientist, Blumenbach speaks fervently in favour of the new ideas. The following quotation encapsulates the ideas of the Chain of Being questioned during the last decades of the 18th century, and points towards the idea of nature then in the ascendant:

I am very much opposed to the opinions of those, who . . . have amused their ingenuity so much with what they call the continuity or gradation of nature; and have sought for a proof of the wisdom of the Creator, and the perfection of the creation in the idea, as they say, that nature takes no leaps, and that the natural productions of the three kingdoms of nature . . . follow one upon the other like the steps in a scale, or like the points and joinings in a chain. . . . in this kind of system, so far from their being filled up, there are large gaps where the natural kingdoms are very plainly separated one from another. . . . I cannot altogether recognize so much weight and importance in this doctrine of the gradation of nature, as is commonly ascribed to it by the physico-theologians. . . . For they make as it were the basis of every natural system, the way in which things rank according to their universal condition, and the greatest number of external qualities in which they coincide with each other, whereas the artificial systems, on the contrary, recognize single characters only as the foundation of their arrangement.⁴²

I take the latter part of this quotation to be Blumenbach's assertion that the truly "natural system" should be based on and developed in terms of "single characters" or particulars. What the physico-theologians saw as natural was in fact artificial. Blumenbach speaks elsewhere of the process of nature, its change.⁴³ His ideas together, then, result in an

emphasis on particulars in flux.

In Herder's Ideen, the newness of the idea of nature seen as process is underlined by its appearance alongside older conceptions. Herder typically asserts that "on the Earth all is change" (10), but sees this change within a closed, finite system: "New forms arise no more; but our powers are continually varying in their progress through those that exist" (114). Herder's work demonstrates the especially transitional character of thought at this time. While denying that new forms can appear on the earth in one context (biological), when speaking of history, he claims that "what has not yet appeared upon [the] Earth will at some future period appear" (442). I will take up his revolutionary historical ideas and their emphasis upon time after adding a final element of potential import for landscape depiction which stems from the Chain of Being: the interest in process as it engenders the study of natural cycles.

I have shown that the Chain of Being, plenitude, and continuity, as metaphysical ideas, promoted the empirical investigation of particular natural phenomena. This tendency was only heightened by the view of nature as process rather than product. The theoretical position may be stated thus: in the late 18th century, the "world appears to be one of flux and change, a process of development of newly emerging individuals, each in its unique position in time and place."⁴⁴ Individuals or particulars are seen to be the agents of change, of fundamental ontological value. Because the divine aspect of physico-theologies was not as widely emphasized at this time as it had been, nature itself came to be conceived of by many as an independent system of particulars. The

process that was nature was characterized in terms of cycles.⁴⁵ Goethe investigated the cycle of plant morphology in his Metamorphosis of Plants (1790); the cycle of human development was explored by the "epigenesists" and "preformationists" (see below, pp.116-18), the hydrological cycle was widely discussed, as was meteorology in general; Hamilton -- to name only one -- saw momentous geological changes as part of the earth's own cycle of rejuvenation. As a further development, "the notion of the self-contained systema naturae . . . encouraged concepts of cycles, symmetry and equilibrium."⁴⁶ Cycles focused on particular natural phenomena and events, yet were at the same time the means of the conceptual (and aesthetic) unification of nature, a way of balancing the new emphasis on particularity with the universal.⁴⁷

Both the definition and proper usage of the term "historicism" are contested today, partly, I believe, because of what we now see as its wide application in the eighteenth century. Historical thinking was characteristic of reflection in aesthetics, anthropology, political theory, geology, and the life sciences beginning c.1750, and particularly in the German-speaking states of Europe. Herder and Winckelmann are consistently seen as the fathers of "historicism". Most critics agree on the details presented to this point. But it is perhaps impossible -- and even irrelevant -- to determine in which sphere of activity this new mode of thought first developed, especially since divisions between what we would now call separate disciplines were fluid in the 18th century.⁴⁸ Definitions of "historicism" have at least this element in common: the focus on the particular unit, whether cultural, aesthetic, or scientific. Rand's formulation cited above

(p. 114) underlines "newly emerging individuals"; according to Friedrich Meinecke -- the main German theorist of "historicism" -- the "essence [of historicism is] the substitution of a process of individualizing for a generalizing view of human forces in history" (cited in Megill; p.32). Others emphasize the relativism inherent in any historicist attitude.⁴⁹

Relativism is founded upon the recognized independence of any historical entity. It is not my aim here to redefine historicism, but rather to underscore its ubiquity in later 18th century German thinking as well as its inherent proclivity for the particular, and to illuminate two areas in natural history at this time where historical thinking delineated new themes of importance for the interpretation of late 18th century landscape depiction.

My first example is the dispute over ontogeny, the origin and development of an organism. As mentioned above, the division fell between "preformationists" and "epigenesists." The former group, predominant until the 1770's and 1780's, held that the characteristics of the adult organism (human development was the usual focus) were contained in the male sperm and the female ovum, and had only to unfold through a lifetime. The theory of epigenesis, on the contrary, "teaches the emergence of something new so that the initial germ and the end product have no similarity, although they are still one and the same thing."⁵⁰ Of those thinkers whom I have so far mentioned, Albrecht von Haller and Goethe favoured preformation, while Blumenbach, Herder, and Kant championed epigenesis. The "emergence of something new" in the epigenetic model announces its connection with the dynamic, nature-as-process view of the world, and with the historicist's emphasis on

particulars conceived in relation to an overall natural system.

New elements in an organism can only obtain in a system which allows for change. Nature was understood as a continuous chain of active members at this time, one always changing and developing (though not necessarily to any end).⁵¹ For an epigenesist, "the chain of being would be but one process of ontogeny" (Temkin;242). Conversely, ontogeny could be conceived on the pattern of a dynamic chain of being, the ladder which proceeds from inanimate matter to man, and beyond. The new participants in this ontogeny were seen historically, that is, as developing through time. They were characterized in the same manner as non-organic historical events: each is a particular in its own right with relative autonomy, but the relation is forever along a continuum which makes up a whole or universal, whether "man", "history", or "nature". Herder's application of epigenesis yields two intertwined analogies of import for contemporary landscape perception: the analogy of the growth of an individual human being (ontogeny) or human civilization with the Ages of Man, and that between human growth and that of plants.

Herder believes that "everything in nature is connected" (127). Man is subject to the same laws and forces as is any other part of this unified whole. The individual nation, man, or grain of sand is a perfect monad, containing within it the essence of the whole. Thus it is not surprising that Herder "thinks of mankind as a person that, in course of historical time, has passed through infancy, childhood and manhood" (Temkin;243). The analogy could be reciprocal: the individual man could follow mankind's development. Herder also assumes that "our ages too are the ages of a plant: we

spring up, grow, bloom, wither, and die" (29). Both images are historical in their emphasis upon change through time. Both view the particular as significant in terms of the universal. And both are a direct result, it seems to me, of Herder's interest in epigenesis and in natural history in general. To anticipate my own argument, such concerns with natural history provide the basis for reinterpretations of paintings as different as Friedrich's Stages of Life (1835), or -- when we remember the aesthetic value of plenitude and variety in natural phenomena -- Kolbe's studies of exuberant vegetation. Both artists can be seen to be more concerned with interpretations of natural phenomena -- some of which were topical in contemporary natural history -- than with recondite symbolism.

A second example of historical thinking in natural history is stratigraphy -- the study of geological strata -- which was one of the most practiced aspects of the rapidly growing science of geology around 1800. Attempts to make mines more productive through the application of scientific knowledge resulted in a systematic examination of natural formations. Until the foundation of the Bergakademie Freiburg by Abraham Gottlob Werner (1749-1817) mining was very much a rule-of-thumb activity. Goethe's researches at the Ilmenau mines beginning in 1777 exemplify the new approach. Mines offered an especially visual idea of how the earth worked in the clearly identifiable strata of different materials. As I have noted, Hamilton had striking visual records of such strata made (See Fig.37). Goethe made sketches of the Ilmenau strata. These and other visual phenomena were interpreted as histories of nature. Peter Simon Pallas (1741-1811) --

a German natural historian and explorer -- stated, for example, that "orders of mountains . . . offer the most ancient chronicle of our globe. . . . They are Nature's archives."⁵² Geological deposits were widely recognized as evidence of natural change and process, though interpretations of these changes varied greatly. Goethe -- following Werner -- believed that strata were deposits formed (in various ways) by the ancient action of a global ocean. These "Neptunist" views, as they were called, encouraged his certainty that strata were deposited in the order in which he saw them in the late 1700's, that there had been no or very little alteration since the ocean settled at its present level.⁵³ Goethe was aware that a great span of time must have elapsed since deposition, but tended to understand the process itself as more or less simultaneous, especially when comparing different geological regions.⁵⁴

Werner, in his professional capacity, was necessarily more concerned with explaining (through a series of drastic movements supposedly undergone by rather numerous primeval seas) the evidence of multiple strata. "Observation of nature's products", says Werner, "shows that . . . it [nature] changed very much during the various successive and . . . enormously great spans of time."⁵⁵ The succession of deposits was crucial to Werner and the hundreds of natural historians he trained in Freiburg. Strata made visible the history of the earth: the lowermost layers (or those closest to a core material in the case of non-horizontal deposits) were thought to be the oldest, since the effects of displacement through faulting were not yet recognized. Thus, because granite was surrounded by deposits on both sides in areas known to

Goethe, he claimed that it was the Urgebirge. No matter what the individual viewpoint, strata were understood as records of natural history, as visual marks of geological time and activity. I wish to suggest at this point (and elaborate in Section III) the idea that visual images of strata -- and other geological phenomena -- embodied this theme of earth history and time. The embodiment was literal: visualizations of particular strata encapsulated in themselves examples of geological change. In -- not through -- any such depiction, the concomitant, more general and unifying theme of time could be presented and could be seen.

The three inter-related aspects of natural history which I have discussed in this chapter -- empiricism, the Great Chain of Being, and historicism -- each provided a great impetus for the observation and visualization of natural phenomena. The particularity of these phenomena was emphasized in widely known publications by Goethe, Herder, Kant, Blumenbach, Raspe, Werner, and many others. This particularity was the vehicle and visual shibboleth for the numerous scientific themes I have considered. Landscape was becoming a more significant genre during the late 18th century, partly because of the efforts of theorists and artists to raise its stature. It is clear enough that nature provided the grand themes needed, but it is now also evident, I believe, that contemporary natural history was instrumental in making nature what it was for the landscape artists, and for establishing the significance of natural subject matter. In the following chapter I will consider aspects of late 18th century German art theory which can in turn be combined in Section III with the findings of this chapter in an analysis of landscape depictions.

Section II, Chapter 4.

Footnotes

1 Ernst Cassirer states that this relation is "the basic and central question of classical aesthetics" (The Philosophy of the Enlightenment, trans. Fritz C.A. Koellen and James P. Pettegrove [Princeton: Princeton Univ. Press, 1951], p.287), as well as a fundamental concern in the Enlightenment awareness of history. See also the beginning of Chapter 5 for a further discussion of this relation in aesthetics.

2 On the Different Races of Man, cited in J.A. May, Kant's Concept of Geography and its Relation to Recent Geographical Thought (Toronto: Univ. of Toronto Press, 1970), p.122.

3 I. Kant, Intro. to Physche Geographie, trans J.A. May (in Kant's Concept of Geography, pp.255-264), pp.260-261.

4 I. Kant, Critique of Judgement, trans. Bernard (New York: Hafner Press, 1951), 82,n.5. References to the third critique are to this translation.

5 This is not the place for an investigation of the complex relation between Rationalism and Empiricism. But by the former here I mean the faith in the ability of human reason to understand what it has before it; by Empiricism, the Lockean assertion that all experience and knowledge is based on sensation.

6 Charles C. Gillispie, The Edge of Objectivity: An Essay in the History of Scientific Ideas (Princeton: Princeton Univ. Press, 1960), p.83.

7 Isaiah Berlin, "Herder and the Enlightenment", in E. Wasserman ed., Aspects of the Eighteenth Century (Baltimore: Johns Hopkins Univ. Press, 1965), pp.47-104.

8 David Kronick, A History of Scientific and Technical Periodicals, p.281. This is not even to mention the popular moral weeklies or poetry, both of which took up current ideas from the sciences. Though I will consider the poem Die Natur in the next chapter as well as theoretical pronouncements on poetry and science by Goethe and the British 18th century theorist John Aikin, the overall issue of scientific themes in poetry cannot be tackled. See Schatzberg's book, cited above (I,3,n.29) for connections between German science and poetry.

9 See Otto Sonntag, "The Motivations of the Scientist: The Self-Image of Albrecht von Haller" (Isis, vol.65, no.228. Sept. 1974, pp.336-351).

- 10 B.M. Stafford, "Toward Romantic Landscape Perception", p.112.
- 11 Robert T. Clark, Herder: His Life and Work (Berkeley: Univ. of California Press, 1955).
- 12 References here are to the 1799 English trans. by T. Churchill, Outlines of a Philosophy of the History of man (New York: Bergmann, 1966).
- 13 The Ideen "achieved an immense popularity, and many of [Herder's] thoughts became part of the common heritage of the German mind." From H.B. Nisbet's invaluable Herder and the Philosophy and History of Science (Cambridge: Modern Humanities Research Assoc., Diss. Series, vol.3, 1970). See also by Nisbet Herder and Scientific Thought (Cambridge: Cambridge Univ. Press, 1970) which is a short version of the first work cited here. My references are from the first book.
- 14 "In Herder's opinion, rationalist perceptions had to be replaced by empirical perceptions from the realm of the natural sciences, history, and psychology." Joe K. Fugate, The Psychological Basis of Herder's Aesthetics (The Hague: Mouton & Co., 1966) p.73.
- 15 Leibniz, Monodology, §56. In, Monodology and Other Philosophical Essays, trans. Paul and Anne Martin Schrecker (New York: Bobbs-Merrill Co., 1965) pp.156-7. See also Hans Wilhelmsmeyer, "Der Totalitätsgedanke als Erkenntnisgrundsatz und als Menschheitsideal von Herder zu den Romantiken" (Euphorion, 34, 1933, 211-43). For a stimulating criticism of the epistemology of the mirror, see Richard Rorty, Philosophy and the Mirror of Nature (Princeton: Princeton Univ. Press, 1979).
- 16 Fugate, p.82. I will have more to say about "historicism" and the particular towards the end of this chapter.
- 17 "Nearly all of Herder's methods combine an interest in naturalistic and in ideal or absolute standards." (Nisbet, p.108).
- 18 Leibniz's definition of beauty is "unity in variety".
- 19 Maximen und Reflexionen, no.569. Cited in H.B. Nisbet, Goethe and the Scientific Tradition (Leeds: W.S. Manley & Son, 1972), p.47. Trans. mine.
- 20 From 'Sprüche in Reimen', trans. Bertha Mueller, in Goethe's Botanical Writings (Honolulu: Univ. of Hawaii Press, 1953), p.13. In subsequent references I will give the translated title of Goethe's essay, the date, and page no. from Mueller.

- 21 See Rudolf Magnus, Goethe as a Scientist, trans. Heinz Norden (New York: Henry Schuman, 1949), pp. 201; 43.
- 22 Nisbet, Goethe, p. 23. Goethe would have known Bacon's works through Herder.
- 23 Letter to Herrn Leonhard, 1807. Cited in George A. Wells, Goethe and the Development of Science, 1750-1900 (Science in History, 5, Netherlands: Sijthoff and Noordhoff, 1978), p. 71. Goethe reports that he said the following to Schiller at their first meeting in Jena: "there might be another way of considering Nature, not piecemeal and isolated but actively at work, as she proceeds from the whole to the parts" ("Propitious Encounter", 1817, p. 215).
- 24 Letter to Charlotte, 1787. Cited in T.J. Reed, The Classical Centre: Goethe and Weimar 1775-1832 (London: Croom Helm, 1980), p. 64. Reed notes that Goethe produced about 1500 drawings but only two poems during his stay in Italy, though the landscapes amongst this group -- as opposed to botanical studies -- are not marked by particularity. Questions regarding the relations between Goethe's scientific and art-theoretical thought will be broached in the next chapter.
- 25 Michel Foucault, The Order of Things, Eng. Ed., (New York: Random House, 1973).
- 26 Kant, Entwurf und Ankündigung eines Collegii der physischen Geographie. Cited in May, Kant's Concept of Geography, p. 65. Emphasis mine.
- 27 Linnaeus' system was logically strong, but not thought to accord with how nature really is: "Linnaeus never denied that his system was an 'arbitrary' one, realizing that his classification by stamens and pistils emphasized but one single factor, whereas to gain a 'natural system' required the consideration of all the organs of a plant together" Ernst Cassirer, The Problem of Knowledge, trans. by W.H. Woglom and C.W. Hendel, (New Haven: Yale Univ. Press, 1950), p. 128.
- 28 R.E. Raspe, An Account of Some German Volcanos . . . Published as Supplementary to Sir William Hamilton's Observations on the Italian Volcanos (London: Lockyer Davis, 1776). See Raspe, An Introduction to the Natural History of the Terrestrial Sphere, trans., ed., A.N. Iverson and A.V. Carozzi from the 1763 Specimen Historiae Naturalis Globi Terraquei (New York: Hafner, 1970), Intro., n. 86. Hereafter cited as (Raspe, p. no.).

Raspe was a friend of Goethe and Herder, was well known generally in Germany, and lived in England from 1775 until his death in 1794. He was a member of the Royal Society.

29 See A.O. Lovejoy, The Great Chain of Being (Cambridge, Mass.: Harvard Univ. Press, 1936), on which I depend heavily in this chapter. For an evaluation of the effects of Lovejoy's study, see William F. Bynum, "The Great Chain of Being After Forty Years: An Appraisal" (History of Science, XIII, 1975, pp.1-28).

30 The terms "biology" and "geology" only appeared in the late 18th century, and are therefore held to be the marks of a major epistemological shift. See Michel Foucault, The Order of Things, and Roy Porter, The Making of Geology. Porter points out that the Great Chain of Being as a way of conceptualizing nature gave way to a "material history of the Earth" at this time, that is, to the new sciences of geology and biology (183).

31 Trans. W. Hastie, in Kant's Cosmogony (New York: Greenwood Publishing, 1968), p.83. The Allgemeine Naturgeschichte did not appear until 1765 or 1766 because of a bankruptcy dispute involving the publisher.

32 Cited in Clarence J. Glacken, Traces on the Rhodian Shore: Nature and Culture in Western Thought From Ancient Times to the End of the Eighteenth Century (Berkeley: Univ. of California Press, 1967). See his complete discussion of physico-theology in Chapter 8.

33 See G.A. Wells, Goethe, pp.3-17; also E.H. Behre, "Goethe and Anatomy", in Goethe After Two Centuries, ed. Earl Hammer, Jr., (Port Washington, N.Y.: Kennikat Press, pp.91-94).

The principle of continuity implied that all creation was closely joined. Thus many researchers looked for missing links "between" the kingdoms of nature. Abraham Trembly (1700-84) -- to cite an example well-known at the time -- claimed that the hydra linked the plant and animal kingdoms.

34 Thomas P. Saine, "Natural Science and the Ideology of Nature in the German Enlightenment" (Lessing Yearbook, VIII, 1976, pp.61-68), p.71. In relation to the Herder passages quoted here, and in general, the mutual modification of scientific and aesthetic values must be underlined.

35 Roy Porter rightly noted that dichotomies such as static-dynamic have been applied to natural history without sufficient flexibility. Though this context cannot encompass a detailed account of the changes in the Chain of Being, I am aware of the subtleties of the process. See Porter, "The Terraquaeous Globe", chap.7 of G.S. Rousseau and Roy Porter, eds., The Ferment of Knowledge: Studies in the Historiography of Eighteenth-Century Science (Cambridge: Cambridge Univ. Press, 1980), p.291.

- 36 See especially Lovejoy, chapter IX.
- 37 See Martin Rudwick, The Meaning of Fossils, 2nd ed., (New York: Science History Publications, 1976).
- 38 Critique of Pure Reason, Kemp Smith trans., A668;B696.
- 39 This shift in thinking is what Lovejoy calls the "temporalizing of the Chain of Being". For a detailed and lucid account of Leibniz's contribution, see pp.255-62. The exact span of time was widely debated. See Francis C. Haber, The Age of the World, Moses to Darwin (Baltimore: Johns Hopkins Press, 1959).
- 40 Striving -- "Streben" -- is an important theme around 1800, one on which I can only touch in this chapter. It certainly figured in the characterization of nature as process (discussed below). See Helmut Rehder's study, Die Philosophie der unendlichen Landschaft: Ein Beitrag zur Geschichte der Romantischen Weltanschauung (Halle: Max Niemeyer, 1932).
- 41 The question of 18th century "evolutionism" has been extensively debated. It is now clear that Herder, Kant, Goethe, Buffon, Diderot, Maupertuis and other important thinkers did not think of evolution in Darwinian terms, though their extensive research did in some ways make possible the 19th century advances in this area. See the collection of essays entitled Forerunners of Darwin, 1745-1859, eds. B. Glass, O. Temkin, and W.L. Strauss, Jr. (Baltimore: Johns Hopkins Univ. Press, 1959).
- 42 Thomas Bendysche, trans., ed., The Anthropological Treatises of Johann Friedrich Blumenbach (Boston: The Milford House, 1973. Reprint of the 1865 Engl. trans.), pp.150-51.
- 43 Blumenbach was on the "epigenesis" side of the argument over the development of human beings, and hence believed in progressive development. See below, where I discuss the "epigenesis-preformation" controversy in terms of historicism.
- 44 Calvin Rand, "Two Meanings of Historicism in the Writings of Dilthey, Troelsch, and Meinecke" (Journal of the History of Ideas, XXV, 1964, pp.503-18). Rand is speaking of historicism, but I think his statement has even broader implication.
- 45 Jacques Roger states that "at the end of the [18th] century the model of the self-regulating and cyclic system was widely accepted." See chapter 6 of The Ferment of Knowledge, p.279. See also Porter's analogous statement in The Making of Geology, p.194.

- 46 Porter, The Ferment of Knowledge, p.314.
- 47 The overall shift towards the particular is noted by Elizabeth L. Mann: The view of nature "as complex and diverse . . . was current before and during the early eighteenth century, [but] the eager curiosity about details which it tended to foster, the disposition to differentiate and particularize rather than generalize, were new." Mann also underlines the role of the Great Chain of Being in this disposition". See "The Problem of Originality in English Literary Criticism, 1750-1800" (Philological Quarterly, XVIII, No.2, April 1939, pp.97-118), p.103.
- 48 While emphasizing one sphere over another, commentators point to the overall interest in "historicism" at this time. I have drawn here primarily on the following excellent studies: Alexander Potts, "Political Attitudes and the Rise of Historicism in Art Theory" (Art History, vol.1, no.2, June 1978, pp.191-213; Alexander Potts, "Winckelmann's Interpretation of the History of Ancient Art in its Eighteenth Century Context" (Ph.D.Diss., Warburg Institute, Univ. of London, 1978); Alan Megill, "Aesthetic Theory and Historical Consciousness in the Eighteenth Century" (History and Theory, XVII, no.1, 1978, pp.29-62); D.R. Oldroyd, "Historicism and the Rise of Historical Geology" (History of Science, 17, Sept. 1979, pp.191-213, and Dec. 1979, pp.227-57); and Peter Hans Reill, The German Enlightenment and the Rise of Historicism (Berkeley: Univ. of California Press, 1975).
- 49 See Potts, "Political Attitudes", p.191; Megill, "Aesthetic Theory", p.34.
- 50 Owsei Temkin, "German Concepts of Ontogeny and History Around 1800" (Bulletin of the History of Medicine, vol.24, 1950, pp.227-246), p.231. Professor Temkin's article provided the initial inspiration for my comments here, though he does not discuss the notion of particularity.
- 51 The validity of teleology was much debated in the late 18th century. See especially Kant's Kritik der Urteilskraft, which I discuss in the second chapter of this Section.
- 52 Cited in D.R. Oldroyd, "Historicism", p.200.
- 53 The intricacies of Neptunism, Vulcanism, and numerous other contemporary theories are too great to be discussed in this context. See Porter, The Making of Geology.
- 54 See G.A. Wells, Goethe, Chapter 3.

55 Cited in Alexander M. Osipov, trans., Short Classification and Description of the Various Rocks (New York: Hafner, 1971; original, 1786), Intro., p. 20. I am indebted to Professor Osipov's introduction in my discussion of Werner.

CHAPTER 5: "The Ante-Chamber of Style": German Art Theory

In the last chapter I examined the emphasis upon nature's particularity as it was encouraged by late 18th century natural history. I wish to extend this discussion here to include German art theory in the same period. The striking theoretical concern for the landscape genre which began with German thinkers c.1770 incorporates a similar shift of attention towards the particular, a shift that is surprising in light of traditional theory, and which can be causally linked to natural history. In keeping with my intention in this section to focus on thinkers significant to both art theory and natural history, I will highlight writings by Goethe and Kant. But the landscape theories of three other German-speaking authors had a more direct influence upon artists and subsequent theory. Thus I shall turn first to Salomom Gessner, Johann Georg Sulzer, and Carl Ludwig Fernow.

Salomom Gessner (1730-1788) is best remembered for his idyllic nature poetry, which was immensely popular during his lifetime in his native Switzerland and throughout Europe. Gessner wrote the "Brief über die Landschaftsmalerei an Herrn Fueßlin"¹ in 1770. Here he claimed superiority for an ideal, antique, and literary type of landscape, modelled on the Greek and Roman poets of antiquity, just as Winckelmann (with whom Gessner corresponded from 1758 on) had prescribed specific antique statuary as the standard for modern art.² The landscape artist must be erudite; according to Gessner he must know his classical sources as well as the history of art (as it was written by Winckelmann, and Henry

Fuseli, to whom the letter on landscape is addressed).

The "Brief über die Landschaftsmalerei" is constructed in a tight narrative form through which Gessner describes his own development as a landscape artist, how he has come to realize the ideas of the ancient poets. Gessner claims to have begun in the most naive way by imitating nature's appearances. With the benefit of hindsight, he then claims to have been confused by nature's fecundity, and to have recognized his error: "I wanted to follow nature too closely, and saw myself involved in smallness of detail that disrupts the effect of the whole. . . . In short: my eyes were not yet practiced in regarding nature like a painting; and I didn't yet know anything of giving and taking from nature in those cases which art could not reach." ["Ich wolte der Natur allzugenu genau folgen und sah mich in Kleinigkeiten des Details verwickelt, die des Effekt des Ganzen störten. . . . Kurz: mein Auge was noch nicht geübt, die Natur wie ein Gemälde zu betrachten; und ich wußte noch nichts davon, ihr zu geben und zu nehmen, da wo kie Kunst nicht hinreichen kann" (281).] He goes on to describe how he gleaned the rules of art from experienced masters: from Anthonie Waterloo (c.1610-1690) he learned how to depict trees, from Berghem and Rosa about rocks, and to understand mists from Claude. Gessner is triumphant: "How very much easier I find it, when I study after nature again!" ["Wie sehr find ich's leichter, wenn ich ißt wieder nach der Natur studierte!" (283)]. "A collection of the best ideas" ["Eine Sammlung der besten Ideen" (285)] results from his attention to the tradition of landscape painting, and at the end of his letter Gessner calls for a published compendium of such useful motifs. The discovery of

mentors is the climax of Gessner's artistic autobiography: in "both Poussins," he says, ". . . I found above all the true greatness: that is not mere imitation of nature, that one finds very easy; it is the choice of the most beautiful." [In "die beiden Poussin . . . fand ich vorzüglich die wahre Größe: daß ist nicht bloß Nachahmung der Natur, wie man sie leicht findet; es ist die Wahl des Schönsten" (285).] In the Italian landscape and its rendering by Nicolas Poussin and Gaspar Dughet, Gessner finds the ideal, that which alone is worthy of imitation.

Any figurative representation necessarily involves a relation between the artist and some (usually external) object. This relation has traditionally been characterized in terms of "imitation". The notion of imitation operative in Gessner's narrative is the norm for the 18th century, and embodies the equally conventional domination of the particular in nature by the universal. Kineret S. Jaffe has constructed the following useful summary:

By the eighteenth century the term [imitation] had acquired several different meanings and had become the watchword of opposing theorists. Some believed that the artist should strive to imitate nature as closely as possible: the closer the imitation, the more perfect the work of art. This notion, like the original Platonic concept of mimesis, implied that art could never surpass nature. Other theorists, e.g., Giovanni Pietro Bellori, believed that nature was not as orderly and as regulated as it should be; the artist should try to imitate only its most perfect parts. If the artist imitated only la belle Nature, his art could conceivably surpass nature. According to the academicians who favoured this definition, e.g. Charles Le Brun, if earlier artists had already copied nature's most perfect parts, then later artists need only imitate the earlier artists' creations in order to glorify nature.³

Gessner's method is a combination of the second and third versions: the artist should learn from his predecessors what la belle Nature is, and then imitate that quality in nature. The idealist theory of imitation adopted by Gessner -- that nature must be improved upon by selection and recombination -- was promoted by Sir Joshua Reynolds in particular in the eighteenth century. It stems ultimately from Aristotle's dictum that the artist make things "as they ought to be" (Poetics, 1460b) and is encapsulated in the story of Zeuxis, the ancient Greek painter who chose aspects of five beautiful women in order to portray Helen of Troy. One of the many 18th century depictions of this story is Francois-Andre Vincent's Zeuxis Choosing as Models the Most Beautiful Women of Crotona, shown in the Salon of 1789, and now in the Louvre.⁴ This theory of imitation always ruled against the first type of mimesis noted by Jaffe, the close rendition of observed nature, against the way Gessner began to depict landscape but subsequently rejected. The artist must go beyond the details -- the particular -- to the whole, which becomes the truth of nature. Yet Gessner's own landscapes are often highly detailed and indicate fresh observation. They do not seem to capture the ideal in the way his theory envisions. It was also Gessner's nature poetry that drew Valenciennes' criticism of the supposedly German penchant for over-attention to detail (see Chapter 3, p. ⁸⁰~~83~~). Though Gessner's essay is conventional in its theoretical disregard of observed detail in nature, his own practice points towards a change in the relation between universal and particular. This movement can be traced in other contemporary pronouncements on landscape.

The Allgemeine Theorie der Schönen Künste by Johann Georg Sulzer (1720-1799) is a compendium in dictionary form of thinking on the arts in the late 18th century. Its three editions⁵ were amongst the most widely read and influential documents on artistic theory and practice of the period. Hackert, for example, used this text as the basis for his lectures on art to the Neopolitan court (see Goethe, Italian Journey, pp.138-39. Sub.refs are to the Auden, Meyer trans., Penguin ed.,1970). Sulzer devotes considerable space to "Landschaft": like Gessner, he perceived a great potential for this genre. Sulzer emphasizes the spectator's feelings in front of a natural or represented landscape, and in this presages important aspects of early 19th century landscape theory. He specially underlines the religious sentiments occasioned by sublime forces such as waterfalls, storms, or overhanging rocks (III,146). Thus a landscape must give us slightly more than the eye can see, it must reveal "inner forces" ["innere Kräfte"(III,148)]. In short, "one must . . . see more in a landscape than dead material" ["man muß . . . in der Landschaft mehr als toten Stoff sehen" (III,148)]. Sulzer, like Gessner, demands that the artist go beyond mere appearances. But where nature and the author's reaction to it are hardly mentioned in the "Brief", Sulzer frequently draws attention to the importance of empirical observation.

We learn, in the scientific manner I have elaborated in Chapters 3 and 4 above, from the landscape artist who "shows us scenes where we admire the great, the new, [and] the extraordinary" ["zeigt uns Scenen, wo wir das Große, das Neue, das Außerordentliche bewundern lernen" (III,146)]. Sulzer does suggest the imitation of the usual 17th century

landscape masters, but his increased interest in the direct observation of nature is marked by the inclusion of "the new", that which is explored independently (see my Section I, Chapter 2). Not only the grand aspects of nature are noticed: Sulzer also commends the landscapist to research ("erforschen") the "attributes of natural things, of minerals, of plants and of animals" ["Eigenschaften natürlichen Dinge, der Mineralien, der Pflanzen und ~~der~~ der Thiere"(I,20)]. Sulzer's implicit idea of imitation also requires selection (as it must); not all details are to be copied (III,488). But observation of the natural world is the primary key for landscape artists: nature is "the real school of the artist, where he can learn every rule of art. . . . The theory of art cannot be other than the system of rules which have been distilled through the exact observation of the process of nature" ["die eigentliche Schule des Künstlers, wo er jede Regel der Kunst lernen kann. . . . Die Theorie der Kunst nichts anders seyn, also das System der Regeln, die durch ^{zu} ~~gen~~ Beobachtung aus dem Verfahren der Natur abgezogen worden"(III,507)]. Art theorists have always called for the imitation of nature. But it is clear from Sulzer's references to particular aspects -- minerals, plants, animals -- that he does not mean the abstract, idealized nature of Gessner. Nature for Sulzer should be, as he says, like that described by Haller, Thomson, or Kleist: grand and moving, but full of close observation (III,148;II,671).⁶ Sulzer aims to create an ideal, improved nature by discovering nature's rules at the empirical source (which ultimately leads to God). A brief passage under the heading "Allgemein" suggests the nuance he introduces: the greater emphasis on particularity.

The universal or general ("Allgemein") is "unaesthetic", claims Sulzer, because it comes from "remote" ("abgezogen") ideas. It comes from Reason, and therefore cannot move the Imagination, which depends on the senses. The senses in turn "can only be stirred by individual things" ["werden nur von einzeln Dingen gerürt"(I,113)]. This emphasis on the sensuous nature of the aesthetic is ultimately founded on Baumgarten's separation of the realms of Sense and Reason, and his identification of aesthetics as the science of the former realm. Sulzer's perception of nature, his understanding of its laws, moves from particular to universal: "the particular leads through a necessary inference to the universal" ["das Besondere durch einen notwendigen Schluß auf das Allgemeine führt"(I,113)]. The word "Besondere" becomes crucial at this point in German aesthetics. Translated as "particular", it is often contrasted with "Allgemein" -- "universal", "general" -- and with "Einzel", "individual".⁷ To this point, I have used "individual" and "particular" as synonyms. But as a way to identify natural entities that are at once empirically concrete and ontologically significant, the particular is molded into a discrete aesthetic category fitting conceptually between the (merely) individual and the (abstractedly) universal. It gains importance with the later theorist Carl Ludwig Fernow, and is central in Goethe's thought. The term "characteristic" -- another rendering of "Besondere" -- comes to be pivotal in these later cases.

Carl Ludwig Fernow (1763-1808) was the leading spokesman for the large group of German artists active in Rome around 1800, a group which became increasingly important after the French evacuation of Rome in 1793. Fernow championed

the distinctly German classicism of Jakob Asmus Carstens (1754-1798) in his 1806 biography of the Berlin artist. He approvingly describes how Carstens came from the Berlin Academy to Rome in 1792, and stayed to form a pure, linear style solely on the example of the masters of the Italian Renaissance and Antiquity.⁸ Fernow was also an advocate of Kant's critical philosophy. In the winter of 1795 he delivered lectures on the significance of the Kritik der reinen Vernunft (published 1781 and 1787) and the Kritik der Urteilkraft (1790) at the Villa Malta. Most important in the context of my argument, Fernow sought to augment the importance of landscape painting in the hierarchy of the arts. His essay "Über die Landschaftsmalerei" of 1806 is the lengthiest and most detailed tract to be written on the subject to that date.⁹

The division and specification of the landscape genre is one of Fernow's prime concerns, one which makes his study especially useful in discussing late 18th century landscape. He begins with a distinction between "views" ("Prospekt, Aussicht") and "ideal nature scenes" ("idealischen Naturscenen").¹⁰ There is no ideal for "trees, rocks, mountains etc. . . . because the individual objects of this realm are not bound to any definite form. . . . But there are ideal pictures of beautiful nature scenes." ["Baumes, Felsen, Gebirges etc. . . . weil die einzelnen Gegenstände dieser Art an keine bestimmten Gattungsformen gebunden sind. . . . Aber es gibt idealische Bilder schönen Naturscenen" (12-13)]. Using the familiar distinction between imitating (which is ideal, conceptual) and copying (material, literal), Fernow goes on to describe the relation between particular and

universal in artistic imitation: the artist constructs his picture "from the individual objects [--] the trees, rocks, mountains, clouds, grounds etc. [--] not after models really chosen from nature, but from the Idea." ["auch die einzelnen Gegenstände (--) die Bäume, Felsen, Gebirge, Wolken, Gründe etc. (--) nicht nach wirklichen aus der Natur gewählten Mustern, sondern aus der Idee" (13)]. In short, "forms of individual objects are defined through the idea of the whole"; "only in relation to the whole will each individual be significant." ["Formen der einzelnen Gegenstände durch die Idee des Ganzen bestimmt (13)"; "nur in Beziehung auf das Ganze wird jedes Einzelne bedeutend"(14)].

The middle pages of Fernow's essay are dedicated to distinguishing three landscape "styles" -- Netherlandish, Swiss, and Italian -- and three corresponding "types" -- "natural", aesthetic", and "poetic". His complex analysis treats national landscapes themselves, in their physicality, as carriers of "style" defined as that which "depends on the idea which lies at the basis of the whole, on the choice, distribution, and connection of the individual, and on the harmony of the whole." ["hängt von der dem Ganzen zum Grunde liegenden Idee, von der Wahl, Vertheilung und Verbindung des Einzelnen, und von der Zusammenstimmung des Ganzen ab"(38)]. The 17th century Netherlandish style is concerned with natural detail exclusively. Its depiction of staffage, for example, is "mere imitation of the general and low without choice and improvement." ["blossen Nachahmung des Gemeinen und Niedrigen ohne Wahl und Veredlung" (83)]. The Swiss deals with greater, but still natural, themes, and the Italian with the Ideal. The "natural" type differentiates

the particulars of a scene, the "differences of its plants, its air, its treeforms, its costumes and customs etc."

["Verschiedenheit ihrer Gewächse, ihre Lufftones, ihre Bauart, ihrer Trachen und Gebräuche etc."(37-8)]. The "aesthetic" is more involved with selection and composition, but is (predictably) surpassed by the "poetic" type, the Italian landscape which "above all carries the general character of beautiful nature," and is "so suitable for representations." ["hingegen trägt den allgemeinen Charakter schönen Natur"(48), and is "so passend für Darstellungen"(47)].

Fernow's apotheosis of the Italian landscape is so enthusiastic and conventional within the context of landscape painting c.1800, that a reader could easily overlook the relatively great role empirical observation plays in the very possibility and construction of the scale of landscape styles and types that exalts the Ideal. At the end of the passage quoted above where he exhorts the artist to imitate the "Idea" rather than real models chosen from nature, Fernow adds the crucial qualification "but always in their natural character." ["aber doch jeder in seinem natürlichen Charakter"(13)]. He must underscore the unique character, characteristics, or peculiarities of each landscape type in order to distinguish them. These differences, he recognizes, are given in individuals, in details of animate and inanimate nature like rocks, climate, vegetation, and habitation (26). The controlling principle is stated later in the essay: "The universal purpose of painting is to engage the aesthetic spirit through the representation of definite objects, as they appear in their peculiar [particular] character through form and colour." ["Der algemeine (sic.) Zweck der Malerei

ist, durch Darstellung sichtbarer Gegenstände wie sie durch Form und Farbe in ihrem eigenthümlichen Charakter erscheinen, das Gemüth ästhetisch zu beschäftigen" (102; emphasis mine)]. Thus Fernow compares Italian and Swiss landscapes in terms of individual natural phenomena: trees, rocks, and atmosphere (27). Perhaps borrowing a phrase and concept from the well-known Swiss poet, theologian, and scientist Johann Kaspar Lavater (1741-1801), he instructs the artist to study the land's "Fisiognomie"(53) from nature in order to catch its character.¹¹ Close study of nature assures the perception of the characteristic which "must be expressed in the composition of the landscape." ["mus in der Komposition der Landschaft . . . ausgedrück seyn"(33)]. The characteristic is concrete -- based on observation -- but not individual. "The individual [is that] whereby characteristic truth and individuality will be used in ideal landscape." ["Das Einzelne [ist das] wodurch in die idealische Landschaft Charakterwahrheit und Individualität gebraucht wird" (116; emphasis mine)].

Fernow has placed three concepts in integral relation. The individual (Einzele) is required to define the specific character (Karakter) of a landscape. A landscape must in turn be characteristic to qualify as a unified whole (Ganz) or idea (Idee). Thus the qualities of landscape painting are: "an aesthetic idea as foundation and origin of a work; a composition corresponding to one of these ideas; characteristic truth of the particular; and purposive execution of the relevant expression of the particular and whole." ["eine ästhetische Idee als Grundlage und Keim des Werks; eine dieser Ideen entsprechende Komposition; charakteristische

Wahrheit des Einzelnen; und zweckmässige Ausführung zum gehörigen Ausdruck des Einzelnen und Ganzen"(111)]. In the latter third of "Über die Landschaftsmalerei", he dispenses the familiar advice to follow the 17th century Italianate landscape masters; Bril, Poelenburgh, Nicolas Poussin, and especially Claude. Yet in his brief discussion of Claude, Fernow makes clear the new importance of observing individual nature in order to form either the characteristic or the particular.

"About the study of individuals and execution," Fernow asserts, "different maxims prevail with artists. Many include the exact study of individuals." ["Über das Studium des Einzelnen, und über die Ausführung, . . . herrschen unter den Künstlern verschiedene Maximen. Manchen halten das genauere Studium des Einzelnen"(107)]. Claude may be one of these, but "he maintains that the true imitation of individuals conflicts with the ideal character of the whole." ["behaupt [t], dass die treue Nachahmung des Einzelnen dem idealischen Charakter des ganzen wiederstreite"(107)]. From the direction of Fernow's essay as we read it, we would expect him to conclude at this point that "the individual object has no aesthetic significance and no interest for [the artist]. He obtains both first in the connection and feeling of the remaining parts to a meaningful and beautiful whole." ['der einzelne Gegenstand hat für (den Künstler) keine ästhetische Bedeutung und kein Interesse. Er erhält beides erst in der Verbindung und Stimmung mit den übrigen Theilen zu einem bedeutungsvollen und schönen Ganzen"(23-24)]. But this statement comes much earlier in the essay. What Fernow does say at this later point is surprising, both in terms of his essay and

traditional art theory (which he himself upholds to a considerable extent). "The individual truth of particulars must be added throughout to the ideal beauty of the whole when a complete representation of an artwork is to be. The study of individuals must therefore be just as important as the study of the whole for the landscape painter." ["Zur idealischen Schönheit des Ganzen mus durchaus die individuelle Wahrheit des Einzelnen hinzukommen, wenn die Darstellung ein vollständiges Kunstwerk seyn sol. Denn Landschaftsmaler mus also das Studium des Einzelnen eben so wichtig seyn, als das Studium des Ganzen"](109); emphasis mine)].

Near the conclusion of his study Fernow lists several meritorious modern artists, those who follow in the path of the 17th century mentors in the landscape genre: "Hackert in his early work, Mechau, Reinhart, Boguet and the deceased Züricher Hess." ["Hackert in seinem früheren Arbeit, Mechau, Reinhart, Boguet und der verstorbene Zürcher Hess" (117-118)]. The author singles Hackert out for special comment in a note, partly because the artist is commonly thought to belong "not so much to the ingenious landscape painters, as much more to the view-painters," ["nicht sowohl zu den erfindenden Landschaftsmalern, als vielmehr zu den Prospektmalern" (117n.)], and his honourable mention therefore requires explanation. But Hackert is special for a more positive reason. He understands the painterly, "and knows how to trace this so well in its peculiarities, and to express it so characteristically," ["und wuste dies in seiner Eigenthümlichkeit so gut aufzufinden, und so charakteristisch auszudrücken"] that he deserves praise. And this merit arises "because . . . the study of landscape painting has addressed

itself more to the truth of individuals." ["wegen . . . das Studium der Landschaftsmalerei mehr auf die Wahrheit des Einzelnen gerichtet haben"(118n)]. Fernow recognizes Hackert's involvement with specific natural phenomena (the subject of my first Section), and praises him for raising his landscapes to such a high level in this way. Fernow does not call for a rejection of the Ideal in landscape, but makes the empirical attention to nature requisite for its attainment. This is indeed the way in which what became the new ideals of late 18th century German landscape depiction were often reached, and why many landscapes from this time share the characteristic of particularity.

Gessner, Sulzer, and Fernow share the opinion of traditional aesthetics regarding the relative importance of nature's elements: "It is not because things are [particular] that they are imitated, but rather [in this aspect they] succumb to the primacy of universal truths." ["Die Dinge gelangen nicht in ihrer (Einzelheit) zur Nachahmung, sondern . . . unterliegen dem Primat der allgemeinen Wahrheiten"].¹² The ontological insignificance of natural detail was assured, in theory, from Plato and Aristotle through the important theorists of the 18th century. Christian Wolff (1679-1754) claimed for example that "the reality, truth and essence of the world endures in the presupposed reasonableness of its construction. The individual object of nature is not relevant." ["die Wirklichkeit, die Wahrheit und das Wesen der Welt besteht in der vorausgesetzten Vernünftigkeit ihrer Zusammensetzung. Die einzelne Gegenstand der Natur ist nicht relevant" (Hohner, pp.10-11)]. Roughly the same could be said of Dubos, Gottsched, Bodmer, and Breitinger. Sir

Joshua Reynolds' statements on the Grand Style have become the classic formulations of this viewpoint because of their concinity and wide circulation. "The whole beauty and grandure of (painting) consists . . . in being able to get above all singular forms, local customs, particularities, and details of every kind."¹³ In Section I, I showed that German landscape practice revises these precepts. In the first chapter of Section II, I claimed that contemporary natural history might be partly responsible for this revision which embodies the greater recording of empirical detail. And it is now evident that German art theory moved increasingly towards the theoretical justification of particularity: "The study of individuals must . . . be just as important as the study of the whole"(Fernow). In the painting and theory of the German-speaking figures I am discussing, the notion of an ideal nature was modified rather than rejected. Herbert Dieckmann has suggested (though he gives no more than a hint) both the direction and source of this revision. One element in the relation between aesthetics and philosophy at this time, he says, is "the new evaluation of the particular, the specific, the concrete, and of historical or geographical variability as opposed to the general, the abstract, the permanent and the universal; the mutual relationship between aesthetics and the new science of biology."¹⁴ Natural history encourages a move towards the inclusion of the particular in aesthetics and artistic practice. The theoretical locus is the "characteristic", the new Ideal that is both concrete and universal. I have

indicated the early concern for this notion in Fernow's essay on landscape: much more can be seen in Goethe's writings on art and science.

Goethe's theoretical statements on art and his feelings about contemporary landscape painting encapsulate a revised version of the traditional priority of the whole, Ideal, or universal, one which lends greater importance to the individual aspects of nature while remaining true to its greater lines and import. In his introduction to the Propyläen, written in 1798, Goethe states that "the highest demand made on an artist is this: that he be true to nature, . . . study her, imitate her, and produce something that resembles her phenomena."¹⁵ The artist should not follow the objective world slavishly, of course, but go "beyond" it. He need not become an "anatomist", "naturalist", or "professor of science", indeed, it is "questionable whether he would find what is necessarily most important to him there."⁽⁶⁾ But at the same time, Goethe does demand "perfect observation [which] really depends on knowledge."⁽⁷⁾ Thus, "the artist should also familiarize himself with inorganic matter, and with the general operations of nature."⁽⁶⁾ "If we should form a true conception of art, we must descend to details, and to details of details"⁽¹⁴⁾. In these passages Goethe mediates between the demands of visual accuracy to natural phenomena in their particular manifestations, and universal import. His key is the characteristic.

"The painter", he says, "needs a knowledge of stones to be able to represent them characteristically" (7; my emphasis). Detailed observation gives the artist the knowledge which enables him to imitate "objects by recognizing and emphasizing the important and significant parts from which the character of the whole derives!" (7; my emphasis). The characteristic is different from individual nature - - choice on the artist's part is required - - but Goethe pays much more attention to individual phenomena than do other proponents of the traditional selection mode of imitation as discussed above. The characteristic aims at concreteness as a "valuable antidote to the vacuity of [compositions by] other artists" ("The Collector and His Circle", 1799, p.68). Goethe's seminal essay "Simple Imitation of Nature, Manner, Style" of 1789 (published just after his return from Italy) contains his most precise statements about the nature and significance of the characteristic.

Goethe reviews the qualities of the characteristic in his opening statement on art's supreme achievement, style.

If art succeeds in creating, through the imitation of nature, a general language, and if a profound and accurate study teaches it more and more precisely the characteristics of things, and how they subsist, so that it surveys the whole range of forms and can juxtapose and imitate various characteristic ones, then the highest level it can reach is style, . . . on which it is equal to the highest achievements of man.(22)

"Simple imitation of nature" is the way to the characteristic,

it "operates as it were in the ante-chamber of style"(23). Thus a flower painter (Goethe cites Jan van Huysum (1682-1749) and Rachel Ruysch (1664-1750), both Dutch)¹⁶ for example,

can only become greater if he adds to his talents the expertise of a botanist . . . Then he will not simply demonstrate his taste by his choice of subject, but he will astonish and enlighten us by his accurate representation of these characteristics: and in this sense it could be said that he has formed a style. (23)

Specific, scientific expertise is needed, but must also be ameliorated by the attributes of the characteristic, by "reflecting, . . . comparing the similar and distinguishing the dissimilar" (23). The crucial term here is "distinguishing". As Carl Ludwig Fernow also discovered, the distinctive elements of nature -- specifically landscape in this context -- are necessarily individual. The characteristic thus relies upon empirical observation and rises to the level of the ideal.¹⁷ It is in this light that I would interpret Goethe's assertion in "The Collector and His Circle" that "a beautiful work of art has completed the circle; it becomes an individual again" (57). The concreteness of the artwork is essential to Goethe. His Maxim number 435 cited in the last chapter might be recalled here, as this demand is expressed in terms of the particular and universal:

There is a great deal of difference between a poet seeking the particular for the universal, and seeing the universal in the particular. The [former] gives rise to Allegory, where the particular serves only as instance or example of the general; but the other is the true nature of Poetry, namely, the expression of the particular without any

thought of or reference to the general. If a man grasps the particular vividly, he also grasps the general . . .

The close relation between Goethe's thinking on the arts and sciences has often been noted by critics.¹⁸ Goethe's Italienische Reise, based on letters written during his stay in Italy from 1786-88, is the best source for an understanding of the conceptual propinquity of his scientific studies and art theory. He tells us elsewhere that, during this time, "I was simultaneously writing an essay on art, fashion, and style [probably the "Simple Imitation . . ." discussed above], [and] one on the metamorphosis of plants" ("The History of the Manuscript", 1817, p.168). W.D.Robson-Scott claims that "interest in the natural sciences, especially botany and geology" accompanied his aesthetic interests at this time, "influencing, molding and inspiring his attitude to the visual arts."¹⁹ As Lukács claims, "in both cases, one searches for the truth of nature." ["Man sucht in beiden Fallen, die Wahrheit der Natur"] (Über das Besondere, p.187) . I propose to investigate in some detail the similarities in the method and in the problems posed by Goethe in his scientific and aesthetic writings, and to thus elucidate his notion of the characteristic.

The "desire to resolve the antithesis between the Many and the One . . . [is] the keynote of the whole of [Goethe's] biological work" (Arber, Goethe's Botany, p.80). The same mediation is accomplished in art by the characteristic, since it simultaneously acknowledges the concrete and universal

aspects of the aesthetic object. The method which results from this desire is also the same in art theory and science. In Chapter 4 (p.101) I described Goethe's "objective" scientific thinking as a movement from universal to particular which nonetheless depends upon direct empirical observation: "after observing a certain degree of constancy and logical sequence in phenomena, I [Goethe] derive an empirical law and prescribe it for future phenomena." In this way, Goethe formulated empirical rules "to which thousands of details must conform." He employs the identical procedure for arbitrating between nature and art, and to determine the characteristic: "by observing organisms closely or distantly related, we rise above them to see their characteristics in an ideal picture" ("Intro. to the Propyläen", 1798, p.7). Goethe's mention of "organisms" -- a crucial term in 18th and early 19th century biological controversies -- underlines the indissoluble link between his theoretical ideas and practical procedures in all spheres. Near the end of the Italienische Reise he states his belief in the principle of "one and all" -- that one law is valid in all areas of activity -- which he derived from Xenophanes of Colophon and which justified his use of the same interpretive principles in "natural history . . . and . . . in botany especially [and] by which I interpret works of art" (IR, p.385). A direct parallel can be perceived between Goethe's three levels of natural phenomena -- defined in the same discussion of scientific method just cited - and his description of

three types of artistic imitation in "Simple Imitation . . .". Scientific inquiry begins with "empirical" phenomena which are elevated to "scientific" status through experimentation, and potentially to "pure" phenomena as the result of all experience and experiment. In "Simple Imitation . . .", direct observation is augmented to "manner" by selection, and ultimately to "style" through the artist's further experience. The pure phenomenon in natural history is the same as the characteristic in art. Neither can "be isolated, appearing as [they do] in a constant succession of forms. In order to describe [either] , the human intellect determines the empirically variable, excludes the accidental, separates the impure, unravels the tangled, and even discovers the unknown" (*Experience and Science*, p.228).

Nature and art operate, then, on the same principle; that of a fundamental unity and simplicity underlying manifold experience and variety. In botany, the unifying principle is that of the plant type. Nature, Goethe says, "sets before us the most varied forms through modifications of a single organ", the leaf (Metamorphosis of Plants, §3). He states that this essay "traces the manifold specific phenomena in the magnificent garden of the universe back to one simple general principle" ("The History of the Manuscript", 1817, p.168). In the poem Die Natur of 1782,²⁰ these ideas are generalized: "From the simplest material [Nature] passes to the extremest diversity." Goethe's seminal principle of unity -- without

which he could not proceed empirically -- is essentially a solution to the problem of the one and the many, the particular and the universal. Die Natur contains the following ostensible paradox: "It is as if [Nature] founded all things upon individuality . . . ", yet, "She is whole." But for Goethe there is no contradiction, since "it was his firm conviction that the particular and the universal are not only intimately connected but that they interpenetrate one another. . . . 'Look ⁿot only for something behind the phenomena', he says, 'for these are themselves the theory' (Maxim 575)"²¹ This maxim and number 435 cited above emphasize, however, that the particular is fundamental.

Art, too, functions on a simple principle of order; as Goethe says, the same principle as nature (IR,p.385;cited above). Once again, the grounding principle is also a specific relation between universal and particular. In Goethe's thinking on art, this relation is encapsulated in the notion of the characteristic. Behind his idea of the characteristic as that which mediates between individuals and universals is the Leibnizian definition of beauty as unity in diversity, discussed above (Chapter 4). But both unity and diversity are explicit aesthetic values in new ways for Goethe. His theories of natural history and art employ unity as a means of ordering and controlling phenomena -- this is traditional. What is new is his equal emphasis on diversity, variety -- the particular phenomena -- which is benchmarked by his discussion of difference, of "comparing the similar and distinguishing the dissimilar" ("Simple Imitation . . . ," p.23). Unity and diversity in

Goethe's scientific and aesthetic writings warrant further examination.

Goethe exemplifies the intensity with which observers took in natural phenomena in the late 18th century. In the case of individual natural historians and the sciences in general, the amount and diversity of data to be processed was staggering. The mind always orders experience, but at this time controlling principles were sought explicitly. Goethe's theory of Ürphänomen is a prime example. His idea of the Ürpflanze became definite during a visit to the botanical garden in Padua, described in his Italienische Reise, 27 Sept., 1786: "Here, where I am confronted with a great variety of plants, my hypothesis that it might be possible to derive all plant forms from one original plant becomes clearer to me and more exciting. Only when we have accepted this idea will it be possible to determine genera and species exactly" (IR, p.71). Empirical investigation depends on the unity of nature. It has been suggested -- plausibly, I think -- by Michel Foucault that natural history was at this time the science of order, that as a principle, it was prior to -- because necessary for -- empirical observation. As I noted in Chapter 4 above, Kant objected to the idea that nature makes no leaps on the grounds that experience itself does not reveal such continuity. For Foucault and for Goethe, natural history constructs this order. "By virtue of structure, the great proliferation of beings occupying the surface of the globe is able to enter both into the sequence of a descriptive

language and into the field of the mathesis that would also be a general science of order." And moreover, Foucault continues, "this constituent relation, complex as it is, is established within the apparent simplicity of a description of the visible",²² the very sense I emphasized in connection with Goethe in Chapter 4.

The eye that unifies and organizes the manifold of experience searches at the same time for diversity, for difference in nature. Goethe relies equally on the idea of the whole and the distinctiveness of particulars. Because universal and particular so thoroughly interpenetrate one another in his thinking (as Cassirer has said, see above Chapter 5,p.149), it is not fruitful to ask which is logically prior in his methodology. Goethe himself nominates both, and without contradiction: "The more closely and precisely one observes particulars, the sooner one arrives at a perception of the whole" (IR,p.173); "In an organic being, first the form of a whole strikes us, then its parts" ("An Attempt to Evolve a General Comparative Theory", 1790, p.86). Goethe subsequently explains that we must focus on both poles, the particular and the universal: "It is possible that [the natural historian] might follow this alternating procedure throughout his life" (Meuller, p.115). Goethe recognized the importance of both empirical observation and controlling ideas such as the Úrpflanze or the orderliness of nature as a whole. The Paduan date palm, for example, might be the form of all plantlife, but it nevertheless strives "toward diversity from its first expansion

onward" (Meuller, p.101). Foucault has once more formulated the principle underlying the import of diversity, the particular: "a knowledge of empirical individuals can be acquired only from the continuous, ordered, and universal tabulation of all possible differences" (The Order of Things, p.144). The same dual emphasis on difference and unity appears in Goethe's writings on art, as we might expect from his assertion that, during his stay in Italy, "I prided myself in understanding Nature's method in producing, in accord with definite laws, a living structure that is a model for everything artistic" ("The History of the Manuscript" 1817, p.168). In art, too, Goethe's interest in diversity, the particular, is much greater than that of earlier theorists.

In science and art, then, Goethe seeks the characteristic, that which controls experience and acknowledges its detail. It is no coincidence that in observing nature in Italy he would "keep a sharp lookout for general characteristics" (IR, p.33) with the help of a textbook by Linnaeus, and recommend that artists emphasize "the important and significant parts from which the character of the whole derives" ("Intro. to the Propyläen", p.7). John Gage has noted in Goethe's art criticism "a wholly new sense of the variety of visual experience, and of the completeness in variety . . ." (Goethe on Art, Intro., p.xiv). Unity is a prime aesthetic quality: "the parts must above all be a function of the whole" (Goethe on Art, Intro., p.xv), but variety and precision are, I would argue, of equal importance. Both qualities are exemplified by the characteristic, which is at once the carrier of art's highest achievement, style (see above,

pp.144-45) and that which depends upon "comparing the similar and distinguishing the dissimilar", or, to use a specific example, "a knowledge of stones" ("Simple Imitation," p.23; "Propyläen", p.7). Goethe's preoccupation with the unification of universal and particular in the characteristic -- with the aesthetic control of diversity with unity and the simultaneous specification of natural detail -- is best illustrated by his comments on Rubens, Claude, and Caspar David Friedrich.²³

Regarding an engraving by Schelte a Bolswert of P.P.Rubens' Return From the Fields (Cambridge, Fitzwilliam Museum; Goethe on Art, Fig.16), Goethe says that "so perfect a picture was never seen in nature . . . But the great Rubens. . . carried the whole of nature in his head; she was always at his command, down to the minutest details. Hence his truth in the whole and in the details, so that we think it simply a copy from nature" ("Rubens: Goethe to Eckermann," 11 April 1827, p.203). Rubens' work is at once dependent upon and higher than nature: it is characteristic ("Rubens", p.205). Goethe elaborates this doctrine in a later comment on two landscapes by Claude (see Goethe on Art, Figs. 20,21): "The pictures are true, yet have no trace of actuality. . . . That is the true ideal, which can so use real means of expression that the truth that emerges gives the illusion of actuality" ("Claude: Goethe to Eckermann",¹⁰ April 1829, p.219).

Given only these two passages, a reader might conclude that the relation between the particular and universal in Goethe's art criticism was entirely conventional: he commends the artist who looks at nature in order to form the Ideal, who imitates according to the second of Jaffe's methods cited above (p.130). But read in light of a third excerpt, Goethe's notion of the characteristic can be seen to pay revisionary attention to empirical nature. Goethe reviewed several works by Caspar David Friedrich in 1809. Of two sepia landscapes he says,

An artist who holds fast to nature with earnestness and truth, who unfolds his inner self in his works, and strives towards significance, who, in a word, unites the particularity of the general idea with a characteristic rendering of the individual parts, this artist can never lack the support of the public, for he brings new things to light, and, at the same time, has the quiet reward of being right. ("Caspar David Friedrich," 1809, p.229; emphasis mine).

These lines embrace the complexity of Goethe's idea of the characteristic as that which mediates between the particular and universal and preserves both. "The particularity of the general idea" (or the individuality of the beautiful, as he says in "The Collector", p.57), would have an oxymoronic ring to traditional theorists like Reynolds, for whom art was explicitly not particular. But for Goethe the general must have particularity and "individual parts" require characteristic rendering. These qualities are the basis of aesthetic value and evaluation. At the conclusion of the same essay, Goethe praises Friedrich for his increased

attention to phenomenal nature: "for the imitation of [nature] is now far truer, more characteristic, and both more abundant and more powerful than it was" (233). As we saw in the context of Fernow's "Über die Landschaftsmalerei" (see above, p.140), an equalimport is now placed on the imitation of the details and whole of nature.

In quoting Dieckmann at the beginning of my examination of Goethe in this chapter, I posited a causal link between theories of late 18th century natural history and aesthetics. From a comparison of Goethe's activities in each sphere -- and from his explicit statements linking the two, quoted above -- the connection seems clear. But Goethe goes much farther than noting these similarities: he recommends artistic, aesthetic involvement with themes and subjects from natural history. And his prescriptions also go beyond what would be necessary for a "truthful" representation of nature (the study of its elements, outlined in the Propyläen essay, pp.6-7) to include a marked aesthetic interest in the scientific aspects of nature themselves. "People forgot that science had developed from poetry", he says, "and they failed to take into consideration that a swing of the pendulum might beneficially reunite the two" ("History of the Manuscript", 1817, p.172). That is, art should be concerned with scientific discovery. Goethe's focus -- and that of artists contemporary with him, as I have shown

with reference to Fabris and Hackert in Chapter 3, and will elaborate upon in Section III -- is on the nascent sciences of geology and biology. His remark that "I saw some limestone crags which would make fine subjects for pictorial studies" (IR,p.41), must be interpreted as an explicitly scientific/aesthetic interest when compared with his subsequent comment that "I have always looked at landscape with the eye of a geologist" (IR, p.125). I have emphasized that Goethe was intensely involved with both natural history and art theory during his Italian journey of 1786-88. His ideas in each realm overlap and mesh. I think it would be right to say that his scientific thinking was fundamental to his Weltanschauung, that this area moulded all his thinking. But it is both more apposite and interesting to understand this causal relation as an overall shift of interest which informed both the arts and natural sciences in the late 18th century.

"Interesting philosophical change . . . occurs not when a new way is found to deal with an old problem but when a new set of problems emerges and the old ones begin to fade away."²⁴ New problems can both arise and be disseminated quickly, as witnessed by the upsurge in scientific publications in the 18th century. Goethe's scientific concern for botany, for example, is radical in the late 18th century. Substantiating Rorty's comment above, he does not use Linnaeus' system of classification in the strict way in

which it was designed. The Linnean classification of plants was analytic and static, "it emphasized the constancy rather than the changeability of species."²⁵ In the Systema Naturae (1735) and Philosophica botanica (1751) "the whole of animate nature was constructed according to genus and species, class and order, and every individual was assigned its determinate place in the whole scheme" (Cassirer, The Problem of Knowledge, p.124). Goethe learned from and employed this plan, but in a revolutionary way which addressed new questions. Feeling that the traditional methods saw nature "as something constant, and therefore dead" (Meuller, p.114), he pioneered the theory of organic morphology, based on "the theory of form, formation and transformation of organic natures" ("Preliminary Notes for a Physiology of Plants", mid-1790's, p.88.) The notion of an organism best expresses the view of nature as dynamic discussed above in Chapter 4. In a curious line, Goethe links natural history and art theory through his concept of organicism: "For the plant root I have as much respect as I have for the Strassburg and Cologne cathedrals" ("Problems", 1823, p.118.) Science and art are connected in Goethe's thinking -- and during this period in general -- because of common presuppositions and preoccupations, which necessitate a consideration of both areas, not simply through a causal transfer of interests from one area to the other. "No science can be generated by the absence of another, or from another's failure, or even from some obstacle some other has encountered" (The Order of Things, p.128). Historical change is grounded on even more basic

epistemological variations. And as I hope the evidence of this entire thesis shows, connections between landscape depiction and natural history are much more explicit than any claim to a manifestation of a Zeitgeist. Landscape painting in the late 18th century was often concerned with scientific themes and accuracy primarily because scientific investigation and exploration of natural phenomena -- with its empirical foundations -- formed the ascendant epistemology of the period. And landscape was the ascendant artform, I submit, partly because science was so involved with natural phenomena. Figures such as Goethe who were active in both natural history and the arts demonstrate most clearly the concern shared by these areas. As I have argued, art and natural history are concurrently occupied with ordering and differentiating natural phenomena. Order in landscape painting was more and more frequently based on the ordering principles of natural history, on the supposed organic unity of nature, on natural cycles, and the hierarchy of creation (see my discussion of Koch's Schmadribachfall at the end of Chapter 3, above). Scientific themes also appear in the natural differences examined by late 18th century landscape artists, in the detailed depiction of individual phenomena, the exploration of new sites (such as Hackert's views of Isola di Sora, see Chapter 2, above), in bringing "new things to light", for which Goethe praises Friedrich.

A final example underlines the import of scientific themes for landscape depiction c.1770-1800. In early March, 1787, Goethe climbed Vesuvius with his close friend, J.H.W.Tischbein. "To a cultivated artist like him", Goethe muses, "who occupies himself only with the most beautiful human and animal forms and even humanizes the formless -- rocks and landscapes -- with feeling and taste, such a formidable, shapeless heap as Vesuvius, which again and again destroys itself and declares war on any sense of beauty, must appear loathsome"(IR, p.192). But Goethe gives the strong sense that for him, the mountain's "glowing scree" (IR,p.194) and other phenomena are beautiful (as well as sublime). Goethe -- like Sir William Hamilton -- had a theoretical, scientific control over natural change which allowed and occasioned him to promote exact depictions of nature without loss of aesthetic order. To reiterate, Goethe's overall search for the characteristic in nature and art strikes a balance between the particular and universal. The themes of contemporary natural science -- the systems of natural phenomena -- and its method -- empirical exactitude, exploration -- are the new concerns which are shared to a significant extent in landscape painting. In a late essay, Goethe points to another 18th century locus for the theoretical co-understanding of the arts and sciences, Kant's Kritik der Urteilskraft (1790)²⁶: "Here I found my two most disparate interests juxtaposed; the results of both art and science were discussed, and aesthetic and teleological judgments were

mutually clarified It pleased me that poetry and comparative natural science were closely related, subject to the same standard of judgment" ("Influence of the New Philosophy", 1817, p.230).

The third pillar of Kant's critical philosophy was published in 1790. Goethe struggled with the difficult and profound text of the KdU in the ensuing decade. We know from the above citation and his references to late sections of the book²⁷ that Goethe read, and based his remarkably succinct understanding on, the entire work. Most readers today focus on the "First Part" -- the "Critique of the Aesthetical Judgment", which treats the beautiful and sublime -- and ignore or at best puzzle over Kant's inclusion of the lengthy second part, the "Critique of the Teleological Judgment." The KdU is not directly about art; it seeks to understand the faculty of judgment -- as a more literal translation of the title would suggest. For Kant this means its very possibility as well as how and in what circumstances it may (or must) be employed. The active critique of judgment leads Kant to investigate two areas: "art" (human artifacts and activities),²⁸ and "nature" (what is external, or, as Kant puts it, "the complex of objects of external sense" KdU, §70, p.233). These realms are contrasted in the structure of the KdU: art is subject to "aesthetical" judgment, nature to "teleological". But as Goethe perceived in the passage just quoted, the link

between art and nature found in the common term "judgment" is stronger than their juxtaposition. Kant examines the connections of art, nature, and science at this most fundamental level of judgment. Hence the KdU is the text addressing the mutual theoretical concerns of science and art at this time.

In the second introduction to the KdU, Kant defines judgment as

the faculty of thinking the particular as contained under the universal. If the universal (the rule, the principle, the law) be given, the judgment which subsumes the particular under it . . . is determinant. But if only the particular be given for which the universal has to be found, the judgment is merely reflective. (KdU, p.15)

Kant goes on to explain how judgments of taste (art) and of nature are reflective. They arise from "singular" experiences only, and do not determine the "real" status of the object. Without entering into the manifold complexities of Kant's terminology, two other notions closely related to the determinant and reflective judgments should be introduced. Principles can be either "constitutive" or "regulative" of experience. Mathematical laws, for example, can be known by the "understanding" with a priori certainty, "and are always constitutive; so that if three members of the proportion are given, the fourth is likewise given, that is, can be constructed" (Kritik der reinen Vernunft, 2nd ed., 1787, B223).²⁹ But most experience is regulative, it "applies only to the relations of existence", (KrV, B222) it orders rather than constitutes.³⁰ Reflective

judgment is a regulative function: it orders and differentiates. "It is only on the assumption of differences in nature", says Kant, "just as it is also only under the condition that its objects exhibit homogeneity, that we may have any faculty of understanding whatsoever" (KrV, B685). As I demonstrated above with reference to Fernow and Goethe, aesthetic judgment (in a less technical sense) is responsible for unifying and distinguishing experience. Kant perceives the profound necessity of both functions in aesthetic and teleological judgment, in subsuming the particular under the universal, but, as Michael Podro explains, "if we talk of ordering a manifold or multiplicity of features, then we must entertain the multiplicity as a multiplicity: it would not count as an experience of multiplicity in unity if the parts were simply 'lost' in the whole."³¹ Kant's sensitivity to the need for unity and diversity in all experience stems, I think, from his activities as a scientist.³² But like Goethe, his concomitant concern for the relation of the particular and universal in natural history -- Kant's predominant scientific interest at this time -- and art was more than a simple transfer of problems from one field to another. Questions in both realms are fundamentally intertwined in the common term, judgment.

Kant emphasizes and elaborates on the need for a unifying principle in experience in a long passage immediately following his definition of judgment:

the forms of nature are so manifold, and there are so many modifications of the universal transcendental natural concepts left undetermined by the laws given, a priori, by the pure understanding - because these only concern the possibility of a nature in general (as an object of sense) - that there must be laws for these [forms] also. These, as empirical, may be contingent from the point of view of our understanding; and yet, if they are to be called laws (as the concept of a nature requires), they must be regarded as necessary in virtue of a principle of the unity of the manifold, though it be unknown to us. The reflective judgment, which is obliged to ascend from the particular in nature to the universal, requires on that account a principle that it cannot borrow from experience, because its function is to establish the unity of all empirical principles under higher ones, and hence to establish the possibility of their systematic subordination. Such a transcendental principle, then, the reflective judgment can only give as a law from and to itself. It cannot derive it from outside (because then it would be the determinant judgment); nor can it prescribe it to nature, because reflection upon the laws of nature adjusts itself by nature, and not nature by the conditions according to which we attempt to arrive at a concept of it which is quite contingent in respect of nature. (KdU, p.16)

The continuity of experience guaranteed by reflective judgment grounds the possibility of scientific investigation, since without the assurance that nature will regularly behave according to known laws, induction is impossible. Thus "Kant's view of science [is that of] a systematic body of knowledge which enables us to explain particular events."³³ I would again underline the balanced recognition of particular and universal. Kant explores the epistemological basis needed for comprehending nature as a system at all, whether in terms of the Chain of Being discussed in Chapter 4 above, or the Linnaen categories which are Kant's own point of

departure.³⁴ The logical question "what is the basis of the principle of continuity in nature?" leads Kant to the discussion of teleology which makes up the second part of the KdU.

Kant claims, in effect, "that our scientific investigations must be regulated by the principle that the variety of nature can be explained by a minimum number of laws, but that this principle can itself be made intelligible to us only on the assumption of design in nature" (McF, p.37). Kant ratifies this idea of design in an ingenious way: he asserts that we must treat nature "as if" it had an end (here is an example of the phrase "als ob", crucial to Kant's philosophy), but that we do not thereby suggest that there is such a purpose. The concept of teleology is "no constitutive concept of understanding or of reason, but it can serve as a regulative concept for the reflective judgment, to guide our investigation" of nature (KdU, §66, p.222). Kant envisions natural teleology as an organic model, in terms of the rubric of dynamism and change that I examined in Chapter 4. The entire Kantian "architectonic" of knowledge is conceived as "an organized unity (articulato), and not as an aggregate (coacervatio). It may grow from within . . . [and] is thus like an animal body" (KrV, B861). And when he gives an example of those requiring teleological judgment, Kant describes the investigations of "the dissectors of plants and animals" (KdU, §66, p.223).

What do Kant's ideas on the teleological judgment of nature have to do with art and aesthetical judgment? An attempt at a complete answer would necessarily take emphasis away from the general purpose of this chapter -- to indicate the widespread theoretical concern with problems fundamental to both the arts and natural sciences. But in the broadest sense, the two aspects of judgment are contrasted by the bipartite structure of the KdU. And Kant explicitly warns that "pure" judgments of taste, for example, cannot involve ideas of purpose, of teleology. "Flowers are free natural beauties. Hardly anyone but a botanist knows what sort of thing a flower ought to be; and even he . . . pays no regard to . . . natural purpose if he is passing judgment on the flower by taste" (KdU, § 16, p.65) But Kant goes on to discuss human beauty, asserting that it "presupposes a concept of . . . purpose" (KdU, § 16, p.66). The parallel is not drawn by Kant, but at least in some cases, art and nature are judged identically. Teleological judgment as a method is crucial in both areas:

Independent natural beauty discovers to us a technique of nature which represents it as a system in accordance with laws, . . . That principle is the principle of purposiveness, in respect of the use of our judgment in regard to phenomena, which requires that these may not be judged as merely belonging to nature in its purposeless mechanism, but also as belonging to something analogous to art. (KdU, § 23, p.84).

Kemal interprets this involved passage as a suggestion that

our understanding of natural beauty "is conditioned by our . . . experience of art" ("Natural Beauty", p.148). Though this may be right for Kant in this context, I think there is a deeper and symbiotic relationship between art and nature operating in general, one founded on judgment as that faculty which organizes and differentiates experience. It is in the experience of nature, specifically in its investigation, that Kant has to find an organizing principle. Nature "discovers to us" (entdeckt uns) teleology, which is an organic principle "analogous to art". There is such an organizing principle in both realms because its source -- judgment -- lies in us: "our understanding is of the kind that must proceed from the universal to the particular" (KdU, §76, p.252). The systematization of experience arises as an issue for Kant through his explanation of the possibility of scientific investigation. But the same need for organization and differentiation arises in his examination of aesthetical judgment. At the most basic level -- and as the definition of judgment plainly states -- Kant struggles with the problem of particular and universal. He says little about the arts in the KdU, but his statements do emphasize equally the value of particular elements and unified presentations. Historically, then, Kant's interest in the arts includes a relatively large concern for the particular. And this emphasis is intertwined -- in the complex way I have outlined -- with natural history. His combined interest is almost entirely theoretical. But in

addition to a passing reference to the intricate beauty of minerals (KdU, §58, p.194), Kant gives one significant clue to his recognition of the particular in art: "It will be found that a perfectly regular countenance, such as a painter might wish to have for a model, ordinarily tells us nothing because it contains nothing characteristic, and therefore rather expresses the idea of the race than the specific (traits) of a person" (KdU, §17, n.30, p.72; emphasis mine). As I have argued throughout this chapter, the concept of the characteristic is the locus for the theoretical favour given to particulars.

In this section as a whole I have examined the augmented role of the particular relative to the universal in natural history and art theory. I have held in this chapter that the notion of the characteristic -- which becomes central in late 18th century German art theory -- epitomizes this revised relation. And I have also contended that the theoretical and practical concern of natural history with the particular is also found in art, in some cases as a result of a thinker such as Goethe's direct involvement in both areas, but also because this concern is common to both spheres. Gessner, Sulzer, and Fernow were not scientists (though they would have been familiar with contemporary issues in the sciences), yet their statements regarding the characteristic in art are so close to contemporary scientific questions about the control

and differentiation of the experiential manifold that I may speak of an underlying and concrete concern for the particular, rather than simply the "influence" of natural history on art or of a Zeitgeist's vague incarnations. But with the evidence of this section intact, it nonetheless remains to investigate specific relations between landscape depiction and natural history, which, I submit, were partially responsible for the particularity in rendering and subject matter I discussed in Section I. In Section III, therefore, I will consider these relations in works by J.P.Hackert, J.C.Reinhart, J.A.Koch, and others, and ultimately -- in a coda -- in landscapes by C.G.Carus and C.D.Friedrich. I will attempt to elucidate the connection these artists had with natural history and art theory as a step towards a new interpretation of late 18th century landscape in its relation to the 17th century landscape tradition. As a transition to Section III, however, I want first to briefly consider a neglected work that exemplifies this relation, An Essay on the Application of Natural History to Poetry, (1777) by the English doctor and literary figure John Aikin (1747 - 1822).³⁵

Aikin's tract is dedicated to the British zoologist Thomas Pennant; its purpose "is to add incitements to the study of natural history, by placing in a stronger light than has yet been done, the advantages that may result from it to the most delightful of all arts, . . . poetry"(Aikin, p.iv). The essay was read in Germany in the late 18th century. But even

more interesting, I think, than the possibility of direct influence is the way in which Aikin argues for an aesthetic particularity specifically based on natural history. And though he prescribes for poetry, Aikin believes that landscape painting already follows the course he recommends: "Why not allow her [poetry] the same privilege as her Sister-Muse, who is at liberty to employ her pencil on what parts of nature she most delights in, and may exhibit the rural landskip, without encumbering herself with the mechanism of a plough, or the economy of the husbandman?" (Aikin, p.58). He habitually refers to poets, such as James Thomson, as painters. For Aikin, the "descriptive poet" must "habituate himself to view the several objects of nature minutely, and in comparison with each other" (Aikin, p.11). He abhors the inaccuracies in natural observation passed down by the ancients; these are "only to be rectified by accurate and attentive observation, conducted on a somewhat scientific plan" (Aikin, p.10). Aikin's model is scientific experiment through comparison. He praises "precision and accuracy", and "minuteness in zoological description" as ways of avoiding "indistinctness." Even a passage from Homer "which contains the greatest number of particulars concerning " lions could be useful in this regard (Aikin, p.80; emphasis mine).

Taken together, Aikin's advice can be seen as a compendium of the elements I have included under the heading "particularity". He recommends detailed rendering based on

scientific observation, and even uses a German artist as an example: "Mr. Rudinger [Johann Elias Ridinger (1698-1767)] of Vienna . . . frequently passed whole nights in the . . . forests for the purpose of viewing the . . . inhabitants in their natural abodes"(Aikin, p.67). He makes a strong plea for exploration, again based on natural history: "the poet should think it incumbent upon him to discover and investigate new facts, as well as to frame new combinations of words" (Aikin, p.132). Subject matter and execution should be new, as in Hackert's or Koch's explorations of unfrequented sites (see Section I, Chapter 2), or Pietro Fabris' depictions of Vesuvius. And like Hamilton, Aikin uses classical authors for scientific ends when he can, but eschews the "false representations of nature which ancient error or fable first introduced" (Aikin, p.24). He also finds it "amusing . . . to observe the wonderful sameness of thoughts and expressions culled from a dozen different authors" that stems from their dependence on the traditional sources (Aikin, pp.5-6). Thus the relation of artists to their tradition is called into question because of natural history. The same pattern applies to late 18th century German landscape art in Italy. Finally, Aikin summarizes his own advice using the terms I have underscored throughout this section: modern artists, he asserts, "have generally been too sparing of such particulars as might afford characteristical description of the resembling objects" (Aikin, p.95). German landscape artists at this time were less sparing, more interested in natural phenomena.

Section II, Chapter 5

Footnotes

- 1 Gessners Werke: Auswahl, ed. A. Frey (Berlin, n.d.), pp.279-92.
- 2 Paula Rae Radisich, "Eighteenth-Century Landscape Theory and the Work of Pierre-Henri de Valenciennes" pp.92-3. I have also consulted Alexander Potts, "Winckelmann's Interpretation of the History of Ancient Art in its Eighteenth Century Context" (Ph.D. Diss., Warburg In., Univ. of London, 1978).
- 3 Kineret S. Jaffe, "The Concept of Genius: Its Changing Role in 18th Century French Aesthetics" (Jl. Hist of Ideas, XLI, Oct.-Dec. 1980, pp.579-99), p.580.
- 4 On imitation, I have consulted Rudolf Wittkower, "Imitation, Eclecticism, and Genius" in E.R. Wasserman, ed. Aspects of the Eighteenth Century (Baltimore: Johns Hopkins Press, 1965, pp.143-61), and Wark's intro. to Reynolds' Discourses on Art (New Haven: Yale Univ. Press, 1975).
- 5 First ed., 1771-4; second, 1778; the third ed. of 1792 is cited here, in a reprint (Hildesheim: Georg Olms, 1970.4Bds.) Sub. refs. give the vol. no. followed by the p.no.
- 6 The reference to Thomson as an appropriate model is highly significant, and was also made by Gessner (p.288). The Seasons (1726-30) was recognized in the sphere of European letters before 1750, but its impact upon painting came later. For Samuel Johnson in The Lives of the Poets (1779-81), Thomson "at once comprehends the vast, and attends to the minute" (cited in Andrew Wilton, Turner and the Sublime London: British Museum, 1980 p.23). Sulzer and Gessner's praise of a modern source concerned with natural detail was entirely new to landscape theory.
- 7 Georg Lukács stresses the importance of the "Besondere" in German aesthetic theory c.1800. He sees it as a middle term between "Einzelne" and "Allgemein". I have tried to make this distinction with reference to late 18th century aesthetic theory, but while it is useful, the distinction of "individual" and "particular" cannot always be maintained. See Lukács, Über das Besondere als Kategorie der Ästhetik (Berlin: Hermann Luchterhand, 1967).

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- ⁸ I rely here on an unpublished paper on David and Carstens by William Vaughan, read at the British Art Historians' Conference, London, 1979
- ⁹ Carl Ludwig Fernow, "Über die Landschaftsmalerei", in Römische Studien, Theil 2, (Zürich: H.Gessner, 1806), pp.11-130. References in the text are from this ed.
- ¹⁰ p.12. The foundation of this division is that each art has its own proper excellence within the overall hierarchy, and also within each genre. This principle allows a critic to simultaneously praise and condemn a work, as Meyer does with Hackert (see Chapter 3 above, p.81). Later in his essay, Fernow will also want to relegate Hackert to the lower realm of Prospektmalerei, but also praise him highly (see Fernow, p.117,n)
- ¹¹ Lavater's science of physiognomy may have encouraged a close scrutiny of landscape forms to distinguish types. (See Johann Kaspar Lavater, Von der Physiognomik, 1772; Physiognomische Fragmente, 1775-78). Kant refers to facial features in the example quoted on p.167 of this chapter; J.A.Koch visited Lavater in 1791; C.G.Carus appended an essay entitled "Andeutungen zu einer Physiognomik der Gebirge" to the 2nd ed. of his Briefe über Landschaftsmalerei (1835; see the Coda, below).
- ¹² Ulrich Hohner, Zur Problematik der Naturnachahmung in der Ästhetik des 18. Jahrhunderts (Erlangen: Palm and Enke, 1976) p.108.
- ¹³ Discourses on Art, Wark ed., Discourse III, p.44. Subsequent references are to this ed.
- ¹⁴ Herbert Dieckmann, "Esthetic Theory and Criticism in the Enlightenment" in Introduction to Modernity, A Symposium on Eighteenth Century Thought, ed. Rob't Mollenauer (Austin: Univ. of Texas Press, 1965, pp.65-105), p.66.
- ¹⁵ Intro. to the Propyläen, 1798, p.6. References to Goethe's essays on art are from John Gage, ed., trans. Goethe on Art (Berkeley: Univ. Cal.Press, 1980). Goethe's mention of resemblance (Ähnlichkeit) to nature draws on a strong 18th century tradition in which the entire question of imitation, and the artist's relation to nature was aired. See Hohner, Zur Problematik, passim.

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- 16 Gage's note, p.23.
- 17 The relation of the characteristic and ideal in Goethe's thought is problematic. In "The Collector and His Circle", he states that the ideal "is more to us" than the characteristic (p.56). Beauty must also be more than characteristic (pp.48-49). Yet in the passage on style cited above, Goethe makes the characteristic art's highest achievement. In spite of this difficulty, the relatively great importance of observed nature stands.
- 18 See A.Arber in the Intro. to Goethe's Botany,p.80; Marshall Brown, The Shape of German Romanticism,pp.158-59; Helmut Rehder, Die Philosophie der unendlichen Landschaft (Halle: Max Niemeyer, 1932),p.8, in addition to the other sources cited below.
- 19 Goethe and the Visual Arts,(London: Birkbeck College, 1967)p.4.
- 20 This poem has been attributed to Goethe, but as Arber explains, it was more likely written by Tobler. Nonetheless Goethe asserts that, though "I cannot recall actually writing these remarks, . . . they do agree with ideas preoccupying my mind at the time" (Goethe, "Commentary on Nature", 1828, p.245).
- 21 Ernst Cassirer, The Problem of Knowledge: Philosophy, Science and History Since Hegel, trans. W.H.Woglom, C.W.Hendel (New Haven: Yale Univ. Press, 1950), p.145.
- 22 Michel Foucault, The Order of Things, p.136.
- 23 I will address the question of the influence of Goethe's scientific and aesthetic writings in Chapter 6, below.
- 24 Richard Rorty, Philosophy and the Mirror of Nature (Princeton: Princeton Univ. Press, 1979), p.264. Thomas Kuhn's now famous idea of a "paradigm shift" is similar. See The Structure of Scientific Revolutions, 2nd ed., (Chicago: Univ. of Chicago Press, 1970).
- 25 Charles J.Engard, Goethe's Botanical Writings, Intro.,p.13.
- 26 Subsequent refs. are to the Bernard trans.,(New York: Hafner Press, 1951), and appear as KdU,p. no.

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- 27 Goethe quotes approvingly from §77 of the KdU in his essay, "Intuitive Judgment", 1817, p.232.
- 28 This is not meant as a definition of art, but as a qualification that brings out the initial contrast between the realms in which judgment is applied. Nature is certainly an aesthetic object for Kant; this is part of the complex relationship existing between art and nature in the KdU. See Salim Kemal, "The Significance of Natural Beauty" (British Jl. of Aesthetics, vol.19, no.2, Spring 1979) pp.147 - 66.
- 29 Subsequent refs. are to the Norman Kemp Smith trans. (New York: St.Martin's Press, 1965) and appear as KrV, p.no. "B" refers to the pagination in the 1787 ed., as opposed to that of 1781.
- 30 This dependency upon human faculties led subsequent philosophers, especially Fichte and Schelling, to develop a complete Idealism, where all reality was determined by the self. Kant maintained a belief in independent noumena.
- 31 Michael Podro, The Manifold in Perception: Theories of Art from Kant to Hildebrand (Oxford: Clarendon Press, 1972), p.30. Podro's chapter on Kant is especially relevant to the discussion of unity in Kant's aesthetics.
- 32 Ernst Cassirer concurs with this opinion in The Problem of Knowledge, p.127. His discussion of Kant in Chapter VI is extremely illuminating.
- 33 J.D.McFarland, Kant's Concept of Teleology (Edinburgh: Univ. of Edinburgh Press, 1970). Subsequent refs. are to McF, p.no.
- 34 Lukács claims that Kant seeks the logic of Linnaeus' classificatory system (Über die Besonderheit, p.12); see also Cassirer, Problem of Knowledge, p.124.
- 35 John Aikin, An Essay on the Application of Natural History to Poetry (London: W.Eyres, 1777). Subsequent refs. are to this text. Aikin published numerous works in the natural sciences, translated parts of Pliny's Natural History, and edited the poetry of Spenser, Milton, Thomson, and others. See the biography of his daughter, Lucy Aikin, referred to in Chapter 4 above (n.27).

SECTION III Revision and Exploration in Late 18th Century
 German Landscape

Chapter 6: Traces of Actuality: Hackert, Reinhart, and Koch

In the last section, I examined German natural history and art theory as sources for the widespread impetus to study natural phenomena in their particularity. It now remains to apply the information of Chapters 4 and 5 directly to the practice of landscape painters who, as I showed in Section I, were depicting natural events and elements in a detailed, accurate manner, and actively searching out new landscape sites which were of scientific interest. A more exact account of the revision of 17th century Italianate landscape models accomplished by Hackert, Reinhart, Koch, and others can now be given. A large proportion of German landscapes executed in Italy between c.1770 and 1825 demonstrate an informed concern for nature, while simultaneously being seen by their authors -- and appearing to critics since -- as belonging to the classical tradition of 17th century southern landscape depiction. It is my overall contention that the modification of this tradition proceeded in such a way as to accommodate the greatly increased awareness of natural phenomena. The term particularity encapsulates this specific understanding and the detailed pictorial means necessary for its visualization. The German artists had direct and profound contact with both the contemporary natural

history that promoted particular study of nature and the art theory that supported its detailed examination and depiction. To a large extent, then, the revision of the 17th century tradition into one more occupied with the exact rendering of nature, and one in which nature itself is often the main protagonist, relies upon these German artists' familiarity with the natural sciences and art theory.

The growing scientific awareness of nature resulted in a particularized selection and rendering of new sites which is different from the landscapes of Claude, Dughet, or Poussin. Until now, I have concentrated on differences, since as with Fernow in Chapter 5, this is the only way to make distinctions. But revision is just as much about continuity. Marcel R othlisberger points to the "noble, but as yet unrecognized field of classical landscape in Italy during the eighteenth and early nineteenth centuries".¹ The German paintings I discuss are very much members of this lineage. The central theoretical question is how they can be seen in this way, how Hackert, for example, could see himself as following Claude, or how Hamilton could hang detailed depictions of Vesuvius side by side with his 17th century landscapes. The concepts of revision and continuity indicate "the importance for historical understanding of a notion of repetition with variation over time".² The natural sciences caused new questions and values to come forward in landscape painting (see Rorty, Chapter 5 above, p.156). Artists' interests in this general field

heightened their relation to nature in the present: exploration. But their bond with art in the past remained, and engendered revision.

In this final section, I will begin by discussing the artistic training and connections with the natural sciences and art theory of three major artists, Hackert, Reinhart, and Koch. In each case I will then elaborate an interpretation of their works. To draw out the implications of my way of seeing late 18th century German-Italian landscape, I will then turn very briefly to several important themes: 1. the relation of the sublime, picturesque, and garden theory to the works discussed, 2. the interest in natural history shared by other German-speaking landscape artists, 3. the roles of northern academic training and 17th century Netherlandish landscape painting in the German works, 4. the relation of man and nature in the German landscapes, 5. the question of "neoclassicism" and "romanticism" in late 18th century landscape depiction, and 6. the relation of the 17th and 18th century exemplars of the ongoing classical landscape tradition. As a coda to the dissertation as a whole, I will then consider the writings and landscapes of Carl Gustav Carus as the 19th century culmination of the important relation between landscape and science, and suggest ramifications of this connection for the interpretation of paintings by the most significant German artist of the time, Caspar David Friedrich.

Jakob Philipp Hackert (1737-1807)

Philipp Hackert was the most successful landscape painter in Italy -- and perhaps Europe -- from roughly 1770 until the emergence of a new generation around 1800. As Thomas Jones's Memoirs attest, he was well known to all 18th century landscapists working in the south; his numerous commissions made him widely influential.³ Hackert's prolific output spanned all contemporary media -- oil, sepia, watercolour, engraving, and drawing -- and ranged from somewhat banal, formulaic "views" to the technically and thematically innovative depictions of waterfalls, caves, craters, and other natural phenomena (see Figs. 11, 12, 21, 22, 28, 29, 31, 39) on which I have already touched in Section I. His evident fascination with these particular aspects of nature and their accurate representation can be called "naturalism". Herbert von Einem, for example, claims that Hackert "belongs throughout [his work] to the naturalistic orientation". ["gehört durchaus . . . der naturalistischen Richtung an".]⁴ This sort of naturalism is usually ascribed to German landscapists who remained in Germany and were guided by the 17th century Dutch tradition in their genre, to Adrian Zingg (1734-1816), and Johann Christian Klengel (1751-1824) in Dresden, and to Johann Jakob Dorner (1741-1813) and the brothers Ferdinand (1740-1799) and Franz Kobell (1749-1822) in Munich. The term "naturalism" is as problematic as the root on which it is built. Its meaning can only be conventional -- in the sense that this

meaning was defined by contemporary conventions -- and as we now see the 18th century, "naturalism" meant something like "the way a landscape by Jacob van Ruisdael looks": like unadorned, unidealized, everyday "nature".⁵ Hackert's early training in Berlin was, like that of all the Germans who later worked in Italy, in this tradition. What effect did his familiarity with northern attitudes towards nature have on what I would call his later naturalism?⁶ Before addressing this question, I wish to make a further point about landscape naturalism in the late 18th century.

Looking back on Hackert's work with the knowledge of 19th century plein-air painting, we tend, I think, to feel that a work like his 1785 Tivoli (Fig.11) is highly unnatural, because it is so obviously composed on a rigorous geometric plan. It is a salient aspect of many landscapes c.1800 that the artist seems to have constructed them from several individual, self-contained views, depriving the overall composition of a single, controlling point of view. Koch's Schmadribachfall, Berner Oberland, and Landschaft mit Regenbogen are quintessential examples.⁷ We tend now to think that "natural" connotes only "painted on the spot at one time". But this was not the opinion of late 18th century artists and critics, even though Hackert for one was partially responsible for developing plein-air methods. Highly "contrived" views were thought to be natural. The landscape near Naples by Thomas Jones, (discussed above, Chapter 3, pp.76-77),

for example, was thought by Hamilton to be more, not less, natural because the artist studied a particular palm tree in one location and introduced^{it} into his painting of another site. As we have seen, particular natural phenomena were appreciated for their detailed, scientifically accurate naturalism at this time. Both Meyer and Goethe praised Hackert's "Naturalismus" (see Chapter 3, p.81).

Hackert's early artistic apprenticeship involved copying both Dutch and Italian 17th century landscapes under the auspices of B.N.LeSneur, director of the Königlichem Akademie der Künste in Berlin. His work was exact, but uninspired and even fussy. In 1764 he travelled to Stockholm with Baron Olthoff and sketched in the environs (Lohse, pp.7-11).⁸ Hackert went to Paris in 1765 to work with the famous German-Parisian engraver J.G.Wille. Wille's collection of 17th century Dutch prints clearly guided Hackert's style at this point (Lohse, p.11).⁹ At this time Hackert also encountered another group of works renowned for their naturalism: Vernet's marines.¹⁰ When he arrived in Italy in 1768, Hackert was, then, fully steeped in northern attitudes towards nature, attitudes which were largely shaped by 17th century Netherlandish practices. He maintained the habit, widespread in northern Europe at this time and promoted specially by Wille, of taking sketching trips. But as his work for Sir William Hamilton in the 1770's shows, Hackert was interested in nature

in a more specific, even scientific way than that, say, of Goethe's friend Kniep. Goethe describes how his artist companion tirelessly sought the proper view according to contemporary tastes. In "the pleasant valley in the mountains to the south of Palermo . . ." for example -- a difficult site for a landscapist, according to Goethe -- "Kniep succeeded in finding an excellent viewpoint" for a sketch (IR,p.229). But in his biography of Hackert, Goethe commends this artist's "clear, strong manner" and contrasts these qualities with both view painting and the classical Italianate tradition.¹¹ Hackert clearly was involved with both view painting and the Italianate masters, but a considerable portion of his work also demonstrates a preoccupation with particular natural elements which depends significantly upon his knowledge of natural history and art theory.

Hackert worked closely with two leaders in late 18th century natural history: Sir William Hamilton and Goethe. Hackert's studies for the Campi Phlegraei focused on phenomena of special import for the new science of geology: strata, volcanos, and craters (See Chapter 3). And his depictions of geological oddities continued long after his commissions for Hamilton were complete, as witnessed by his view of Solfatara (Fig.31), or caves near Syracuse (Drawing, 1790). Hackert was also Goethe's frequent companion and drawing master during the time when the latter was formulating his radical theories of plant morphology. While I would not suggest that Hackert illustrated Goethe's botanical ideas,

he must have been aware of them. Three of the artist's own publications deal explicitly with the accurate depiction of plantlife in its variety.¹² As Goethe reports in 1787, Hackert always "stresses . . . the supreme importance of accuracy in drawing and of a confident and clear-headed approach" (IR,p.206). Hackert, then, was familiar with the contemporary natural sciences, especially geology and botany; the evidence of his oeuvre suggests that this acquaintance directed his choice of subject matter and required its exact rendering. We may ask, with Martin Rudwick, why only a very few renderings of geological phenomena in the late 18th century were not "decidedly crude",¹³ or why, to put it positively, even an early example like Hackert's Ohr des Dionysos (Fig.29) shows such scientific and technical mastery. How is it, to choose another example, that Koch could depict Alpine forms so clearly and with such scientific rigour in the late 1790's when other artists -- Rudwick cites the illustrations to Horace-Bénédict de Saussure's Voyages dans les Alpes (1779-96) -- could not, or at least did not, attain such precision? A plausible explanation is that landscape artists were only beginning to understand nature scientifically -- Hackert was one of the first to do so.

I held in Chapter 5 that German art theory c.1770-1800 encouraged the particular representation of nature in its articulation of the "characteristic". Hackert himself notes the centrality of the "character of truth and beauty" ["Charakter der Wahrheit und Schönheit"] in nature (Fragmente,

p.206). In his theory and landscapes he seeks the balance between the ideal whole of nature and its particular parts which defines the characteristic. But largely because of his scientific interests, this median is reached through a much greater attention to exactitude than in any earlier landscape art. For Hackert, "the details [of nature] must be so practised, that trees and plants would be recognizable to a botanist, mountain formations to a geologist." ["die Details müssen so eingeübt sein, dass Bäume und Pflanzen dem Botanikus, Gebirgsformationen dem Geologen kenntlich werden."]¹⁴ This view of the characteristic may have stemmed from 18th century science, and Goethe's thought in particular, as I argued in Chapter 5. Hackert must have been thoroughly conversant with Goethe's thinking, as with that of the two other theorists who evidence the shift towards particularity: Sulzer and Fernow. Goethe tells us, for example, that Hackert frequently lectured to the court circle in Naples on Sulzer's Allgemeine Theorie (IR, pp.138-39.) Nature and the 17th century Italianate landscape masters were authorities of equal stature for Hackert's work. From Goethe's explanation in the Colonna Gallery cited above, (Intro.,p.4), it would seem that Hackert's way of seeing nature was first formed by Poussin, Claude and Dughet. But the artist's insistence upon the accurate study and representation of nature -- substantiated by his familiarity with contemporary science and art theory -- indicates that the ideal nature

established by these earlier artists was being modified to include a greater emphasis on particularity. This was the new landscape ideal c.1800, one consistent with both tradition and innovation.

The phenomena and forces of nature itself become the central themes of German-Italian landscape depiction beginning with Hackert. Claude's compositions present an ideal, timeless world in which man's actions are staged (Fig.3).¹⁵ The workings of nature are partially investigated in the storm landscapes of Rosa and Dughet, but in a generalized way. Detailed knowledge and execution is required to represent natural phenomena accurately. Hackert's 1785 version of the cascades at Tivoli (Fig.11), as I said in Chapter I, emphasizes the structure of the falls and its atmospheric phenomena. His fine observation gives the viewer a sense of this natural phenomenon as protagonist in all its force and grandeur.¹⁶ Most of Hackert's landscapes focus on change, process, dynamism, themes in keeping with the contemporary view of nature championed by natural history. The waterfall may in one sense be a symbol of mutability in both external and human nature -- as it is in much 17th century Dutch landscape - but it is also a direct visual revelation of change, of what was coming to be thought of as the essence of nature. This scientific attention to nature is not without precedent, since increased knowledge of botany and optics especially is a partial reason for the detail of 17th century Dutch landscape depictions.¹⁷

Such scientific concerns go even further with the 18th century German painters. Our appreciation of Hackert's landscapes can be augmented if we attend to his forthright inclusion of geological, meteorological, and botanical information. Goethe's words once again make the same assertion: "Look not only for something behind the phenomena, for these are themselves the theory" (Maxim 575). But as Sir William Hamilton's scientific writings most dramatically illustrate, the phenomena were replete with speculation, with theories which became themes in late 18th century landscape depiction capable of replacing the classical and mythological topoi of the 17th century Italian school.

Temporal thinking informs many of Hackert's landscapes. His Tivoli scenes capture the evanescent appearances of mist and flowing water. But much lengthier periods of time can actually be seen in geological structures. In the geological thinking of Hamilton and Goethe -- of which Hackert was certainly cognizant -- rock strata, volcanic mountains, craters, and caves were testaments to the longstanding and continuous transformations of the earth, to previously unimaginable spans of time. Geological time was rivalling biblical time as the norm by 1800, particularly in the scientific community.¹⁸ The developing earth sciences also shared a fascination for the inner processes of nature.¹⁹ Somewhat vague notions of natural powers, such as those

exemplified by Herder's thought, were beginning to be made concrete through scientific understanding and visualization.²⁰ Hackert's depictions of volcanic forms and caves can thus be seen to carry the profound associations and implications of current revisionary scientific thinking. This natural historicism can only be seen by viewers of landscape art if it is highly specific. The historical thinking in politics, aesthetics, and science which arose in the late 18th century is characteristically relativistic. The uniqueness of artistic periods, for example, depends upon the discernment of stylistic differences -- this was Winckelmann's project and accomplishment. If natural phenomena are to figure in scientific theory or in landscape painting, they must also be clearly differentiated. This principle directed Fabris' illustrations to the Campi Phlegraei; it also supports the theoretical idea of the characteristic. Hackert's drawings of the Ohr des Dionysos (Figs. 28, 29) are more than "views", reminders of high points on a Grand Tour. They embody a scientific understanding of the grand processes of nature in all the specificity with which the external world was then understood. This particularized rendering was a uniquely German characteristic at this time. This point is underlined by a comparison of Hackert's caves with coeval versions of related subjects by the French landscapist Jean-Pierre Houel (1735-1813).

Houel travelled and drew in Sicily from 1776-79, and published the Voyage pittoresque des isles de Sicile, de

Lipari, et de Malte, with aquatints after his own drawings, from 1783 to 1787. He represents some of the locales and sites found in the Campi Phlegraei. His Interior of the Cave at Caumont (Fig.42) shows a large cavern filled with stalactites which is actually near La Bouille, close to Rouen.²¹ Three figures stand in the cave, apparently gathering rock samples. The plate is labelled with upper case letters in several spots, referring its viewer to comments in the accompanying text. A recent catalogue entry for Houel's Voyages claims that "these drawings combine a strongly realistic, even scientific, approach to their subject with a vein of genuinely poetic feeling" (French Landscape Drawings, p.80). While I would agree that these landscapes are poetic and of high quality, they are certainly not "scientific" when compared with Hackert's depictions of caves. Houel's Interior depicts men concerned with geology, but does not itself supply detailed information to its viewers. It reflects the new scientific interest, but does not visualize it in a way that makes a more complete communication possible.

A final comparison illustrates the extent to which the particular rendering of nature informs Hackert's oeuvre. Many of his landscapes result from the exploration of the Italian countryside. Much of the inspiration for such journeys was, I think, scientific. The volcanic crater so painstakingly presented in the Ansicht der Solfatara, 1788 (Fig.31), for example, could never have been a suitable

subject until the late 18th century. Hackert painted such new sites throughout his career, but he also composed on strictly classical themes. The Waldlandschaft mit dem schlafenden, von Tauben behüteten Knaben Horaz, 1805 (Fig.41) [Forest Landscape with the Sleeping Youth Horace, watched over by Doves] forms, in a thematic sense, a counterpoint to the Solfatara. As Hackert indicates on the back of his canvas, the landscape illustrates a poem from Horace's Odes, Book III, Ode IV.²² Stanzas two through five are most relevant to Hackert's picture:

Hark! Or is this but frenzy's pleasing dream?
 Through groves I seem to stray
 Of consecrated bay
 Where voices mingle with the babbling stream,
 And whispering breezes play.

When I had stray'd a child on Vultur's steep,
 Beyond Apulia's bound,
 Which was my native ground,
 Was I, fatigued with play, beneath a heap
 Of fresh leaves sleeping found,

Strewn by the storied doves; and wonder fell
 On all, their nest who keep
 On Acherontia's steep,
 Or in Forentum's low rich pastures dwell,
 Or Bantine woodlands deep;

That safe from bears and adders in such place
 I lay, and slumbering smiled,
 O'erstrewn with myrtle wild
 And laurel, by the gods' peculiar grace
 No craven-hearted child. 23

In Hackert's representation, Horace is depicted sleeping. Though the poet's eyes are closed, we as viewers see what he dreams: a childhood memory of a detailed landscape. Thus, though with an ironic twist, the picture's theme is vision. Natural elements have been presented with remarkable

clarity. The laurel crown -- attribute of a poet-- with which the soaring doves honour Horace is recognizable without the text. Both the trees and foreground foliage are shown with botanical exactitude. Hackert's is not the "conventionalized vocabulary"²⁴ for presenting nature developed by Claude and his contemporaries, but a scientifically erudite lexicon of natural forms. Nature is the real actor here: Horace may command the title, but he is dwarfed in the composition by exuberant natural growth. The plenitude of nature is closely connected with contemporary thinking in the natural sciences, as I showed in Chapter 4. Hackert's scientific interests -- buttressed by art theory -- led him to a particularization of nature in many of his works; whether or not they dealt explicitly with scientific themes does not seem to be a determining factor. His vision and depiction of nature became exact and detailed through a familiarity with natural history: this trend continued with the next generation of German landscape artists in Italy.

Johann Christian Reinhart (1761-1847)

Reinhart was one of the most accomplished and respected landscape painters working in Italy c.1800, though his work is not now widely known outside Germany.²⁵ From the time of his arrival in Rome in 1789, he developed an "heroic" landscape style based especially on Claude and Dughet and which was characterized by classical themes, set in a grand, almost

architectural natural world. Reinhart's early academic training was typical for the period. From 1779 to 1782 he studied in the Leipzig Academy under Adam Friedrich Oeser (1717 - 90); in 1783 he enrolled in the Dresden Academy to work with Christian Klengel (Feuchtmayr, pp.55ff.). He copied landscapes from Claude's Liber Veritatis, but showed an even greater proclivity for the 17th century Netherlandish masters, especially Swanevelt. By the time he left for Italy in 1789, Reinhart had established a strong linear style, close to that of Klengel, Zingg, and F.Kobell, and also based on rigorous observation of nature (Feuchtmayr, pp.59-61). Feuchtmayr claims that Reinhart was less concerned with the direct study of nature after his arrival in Italy, that he was in effect intent from the beginning upon achieving the more ambitious sense of nature found in his mature heroic landscapes after 1800. In opposition to this view, I wish to establish that Reinhart did maintain his empirical attention to nature, and that the detail he incorporated in his mature work as a result of this study was actually the means by which he achieved his Italian style. Reinhart's friend Fernow prescribes just this course for landscape artists: they must "always proceed on the road of the strongest definition of details to the harmony of the whole." ["immer auf dem Wege der strengste Bestimmtheit des Details zur Harmonie des Ganzen fortschritten."] ²⁶

In spite of his attention to Reinhart's nascent heroic style, Feuchtmayr conincues to note the artist's keen observation

and clear execution of the Italian landscape. Reinhart's extraordinarily beautiful compositions in the Malerisch Radirte Ansichten von Italien (1792-98; Figs.23-27), for example, depict an architectonically majestic nature, but do not thereby "exclude . . . exact drawing." ["schliessen . . . die exakte Durchzeichnung" (Feuchtmayr, p.81)]. This combination of exactitude stemming from observation with both thematic and compositional elements modelled on Claude, Dughet, and Poussin is the essence of the 18th century German modification of the Italianate landscape style. Reinhart also indicates his continued interest in naturalism by retaining references to 17th century Netherlandish landscapes. Herbert von Einem suggests that these aspects of Reinhart's northern training remained with the artist throughout his mature period.²⁷ As late as 1799, Reinhart asked his dealer Frauenholz in Nürnberg to secure for him a print by Swanevelt. His collection also contained works by Rembrandt, Ruisdael, and Paulus Potter (Feuchtmayr, pp. 136-37). Die Mühle of 1800 (Fig.44) is reminiscent of many 17th century Dutch representations of this subject. It is not typical of Reinhart's thematic focus at this time, but does show his unbroken contact with northern landscape conventions. Reinhart's involvement with these conventions is perhaps a sufficient explanation for his reputation as an actual as well as an artistic explorer of nature.²⁸ But I think that the particularity evident in many of his landscapes is at least partially grounded in natural-historical knowledge, even though none of his works is as overtly scientific as examples

by Fabris or Hackert.

Reinhart did not work for a natural historian/patron like Sir William Hamilton, but his work provides several traces of an acquaintance with geology. His crayon and watercolour drawing Felsenpartie, 'Mönch und Nonne' bei Eisenach in Thürigen (Fig. 45) shows three large rock columns isolated on a hillside with two travellers talking in front of them. These formations are granitic columns, left after erosion had removed surrounding material.²⁹ The same geological oddity -- though from a different part of Germany -- is featured in Carus' Die Dreistein (Fig. 46) and Friedrich's Der Watzmann (Fig. 47). Such landscape curiosities would be liable to attract artists, both for the uniqueness of their form, and perhaps because of the associations of granite. Granite had a special significance at this time: Goethe thought it was the Urgebirge as I discussed in Chapter 4. It thus became a literal touchstone for the arguments about change and permanence in the earth. Scientific issues of this kind were not restricted to professionals in the 20th century manner, but were the property of most educated people. And Reinhart had a more proximate source, the landscape painter Christoph Nathe (1758-1808). Nathe was part of Goethe's wide circle of acquaintanceship in Weimar. He was also the 18th century discoverer of the Riesengebirge,³⁰ and had such a keen interest in geology that he complained to a friend in 1786 that "it is in general such a shame that one cannot speak with anyone in Leipzig about rocks and geology and minerology." ["Das ist überhaupt ein

Leiden, dass man in Leipzig mit keinem Menschen von Gebürge[n] und Geogonie und Minerologie sprechen kann."] Reinhart and Nathe were friends during the period when the Felsenpartie was drawn, and maintained a correspondence after Reinhart moved to Rome in 1789. Besides referring to contemporary geological controversy with this work, Reinhart also depicted caves frequently, especially in his engravings. (See Feuchtmayr, Abb.326,414,437,442). In Die Landschaft mit dem heiligen Hieronymus, 1805 (Fig.48), the figure is almost invisible at the mouth of a cavern. Though the cave is a common dwelling-place for hermits as they are depicted in art, Reinhart seems to find the natural phenomenon more interesting than the landscape's nominative subject. Again in the Landschaft mit Felsenhöhlen (Feuchtmayr, Abb.326), a shepherd in the foreground is dwarfed by a series of finely depicted caves. Given the contemporary scientific exploration of caves as entrances to the workings of the earth, (see Chapter 2 above, pp.34-35). the theme of geological time discussed above with reference to Hackert should, I think, augment our interpretation of these landscapes by Reinhart.

Reinhart had very close ties with art theory during his time in Rome: this more than any other influence can be seen to guide and reflect his relationship to nature and the 17th century Italianate landscape tradition. Reinhart shared accommodations in Rome with Fernow for six of the ten years between 1794 and 1804 (Feuchtmayr, p.87). At least one modern critic envisions Reinhart's landscapes as realizations of

Fernow's theories, as "humanistic memories of ideal ages past." ["humanistische Erinnerungen idealer Vorzeiten"].³¹ The emphasis upon the idealized aspects of Reinhart's work, on his creation of grand and powerful natural settings for classical stories,³² certainly speaks to an important element of his painting. But it also tends to overlook the differences between Reinhart and his pictorial models. I wish to widen our understanding of Reinhart's accomplishments by focusing; on particularity in his vision and execution, a feature his work also shares with Fernow's theories.

I claimed throughout Chapter 5 that the characteristic was, for many late 18th century German theorists, the locus for a re-evaluation of the relation between particular and universal in art. In a relative sense, the particular was favoured. In Fernow's lengthy 1802 appreciation of Reinhart, the characteristic is again a detailed, concrete quality that is nonetheless informed with the spirit of the whole:

Reinhart maintains a high status in several aspects of his speciality In thorough study, no one outdoes him -- he has perhaps never been surpassed. All objects of landscape nature, especially trees, rocks, ruins, the plants, the foregrounds etc., are expressed in his paintings so characteristically, and with such masterly certainty and definition, that one can recognize every tree, every plant, every stone, every rock type in his paintings as well as [one can] in nature itself The artist has acquired this exceptional perfection through long and persistent study after nature. . . . Some would find in this artist's paintings too much definition of details in distant objects, so that these same are brought too close to the eyes, and the attitude and harmony of the whole [therefore] becomes adversely [affected. . . .] But it is to be hoped that all artists in his field could be censured for this error for awhile, so that they would always proceed on the road of the strongest definition of details to the harmony of the whole.

"Reinhart behauptet in mehren Theilen seines Faches einen hohen Rang, . . . Im gründlichen Studium übertrifft ihn keiner, hat ihn vielleicht nie einer übertroffen. Alle Gegenstände der landschaftlichen Natur, vornehmlich Bäume, Felsen, Ruinen, die Pflanzen der Vorgründe etc. sind in seiner Gemälden so charakteristisch, und mit so meisterhafter Sicherheit und Bestimmtheit ausgedrückt, dass man jede Baumart, jedes Gewachs, jede Stein- und Felsenart in ihnen, so gut wie in der Natur selbst, wieder erkennt, . . . Der Künstler hat sich in diese seltene Volkommenheit, durch ein vieljähriges und hartnäckiges Studium nach der Natur erworben: . . . Einige wollen in dieses Künstlers Gemälden zuviel Bestimmtheit der Details in der entferntesten Gegenständen finden, wodurch dieselben dem Augen zu nahe gebracht und der Haltung und Harmonie des Ganzen nachtheilig werden, . . . Es wäre zu wünschen, dass alle Künstler seines Faches eine Zeitlang dieses Fehlers zu beschuldigen wären, dass sie immer auf dem Wege der strengsten Bestimmtheit des Details zur Harmonie des Ganzen fortschritten". 33

Fernow identifies and praises the exactitude of Reinhart's work, finds the source of this quality in the artist's careful study of natural phenomena, and recommends that all landscape artists follow this course in order to realize the harmony of the whole image. For Fernow, and, it seems, Reinhart -- as it was for Goethe (See Chapter 5, p.145) -- close imitation of particular nature is now the way to proper landscape depiction. The 17th century Italianate ideal has been revised to include a more knowledgeable representation of external nature. Fernow was not the only 18th century critic to appreciate the particularity of Reinhart's work. In a letter to Goethe in 1802, Wilhelm von Humboldt contrasts this quality with an example of French landscape: "From one of [Reinhart's] pictures one can make five of Denis' and the most exact study of all details brings strength to each individual part." ["Aus einem bild von ihm machte man fünf von Denis und das genaueste Studium aller Details bringt Festigkeit in jedem einzelnen Theil" (Feuchtmayr, p.124)] . Reinhart does not speak of an interest in the particular or characteristic in his own theoretical writings³⁴ -- he is more concerned with

the state of art criticism in Germany -- but his landscapes do give concrete evidence of these qualities, as Fernow and von Humboldt proclaimed.

The detailed observation and rendering of natural objects remained a hallmark of Reinhart's work in all media. In his large oil entitled Blick auf Tivoli (1813; Fig.15), the famous architecture of this spot is presented with great clarity. The temples of Vesta and Sybil seem close to the viewer despite the low viewpoint. The intricacies of structure and even decoration are plainly visible against a bright blue sky. A strong midday light originates to the left in Reinhart's composition, defining with chiaroscuro the complex rock formation on which the buildings stand. All parts of this picture are remarkably visible: spatial depth is assured through a diminution in the size of objects, yet since everything also seems close by virtue of its sharp definition, the scale is -- after a period of looking -- somewhat ambiguous. The rock faces of the central cliff are depicted in such detail that we feel³⁵ very close to them. But the diminutive birds circling at the middle left of the canvas establish the viewer's considerable remove.³⁶ The figure in the lower left corner is large enough to be in the immediate foreground -- though below the line of sight -- and again suggests the distance of the cliff wall. A study for

this painting has been dated to around 1800 (Feuchtmayr, Abb.63) -- to the time when Fernow wrote of Reinhart's concern for the exact representation of nature. Though only the central portion of this drawing is finished, the result is almost identical with the later oil. The significant change is that Reinhart has, in effect, cropped the edges of the horizontally lying rectangle of the 1800 version, making the oil a vertically standing rectangle and thereby increasing our sense of proximity to the main details. In the pencil and brown wash drawing, we can see the way Reinhart uses the intense light to define form. This technique is combined with a careful application of colour in the oil to make both the structure and surface of the rocks look very natural. The choice of subject and its precise depiction is a prime example of what I have been calling particularity.

Naturalistic studies were very important to Reinhart, and almost always highly finished. As Fernow says in the evaluation cited above, "his studies are not passing outlines or sketches, rather [they are] perfected paintings or realized drawings." [" seine Studien sind nicht flüchtige Umrisse, oder

Skizzen, sondern vollendete Gemälden, oder ausgeführte Zeichnungen" (Feuchtmayr ,p.124)]. Reinhart's subject is usually a close, highly detailed view of rocks, trees, or ground plants. His Blattpflanzen und Erfeuranken. c.1797 (Fig.49) is representative of many works. Fernow's words just quoted could mean that the traditional distinction between study and realized landscape -- that the former had value only as a means to the latter -- is breaking down. This was certainly the case with the large outdoor works done by Hackert, of which the Isola di Sora pictures might be examples (Figs.21,22). If Reinhart's nature studies are "perfected paintings", could we not reverse the formulation, and say that at least some of his oils are nature studies of a special sort, concerned in part with the detailed, even scientific, rendering of the external world?

Tivoli, Brücke bei San Rocco, mit Wasserfall (1812;Fig.18) represents another famous part of the Tivoli region.³⁷ There is no doubt that the many historical associations enjoyed by this spot and the area as a whole, as well as its role as the "only school" where Claude and Dughet were to have studied, drew the 18th century German landscapists. But what they did once there is quite different from other national groups. The depictions of this bridge by Reinhart and his fellow Germans are also nature studies in the particular ways I have been describing. Jean-Honoré Fragonard's (1732-1806) exquisite Les Cascatelles de Tivoli (1760; Fig.50) provides an instructive contrast. Fragonard's composition seems at first very similar to Reinhart's: the view is taken close to and below the bridge with the cascades behind, framed by the arch. But the differences between these paintings are many and

significant. Fragonard's picture places us slightly closer to the bridge and the house at the top left. He takes his viewpoint a little more to the right of the bridge's opening, and thus includes a large building in the right foreground and middle ground on the roof and in front of which figures are doing laundry. The light comes from the upper right: judging from the steep angle at which it illuminates the foliage in the left part of the picture and the nearly vertical wall-face at the extreme right edge half way up, it is around midday. Most of the architectural and natural forms are in deep or half shadow, highlights being reserved for the distant cascade and the washing. The areas which are lighted blend together in a diffused, moist atmosphere. For all these reasons, forms in Fragonard's landscape are not clearly defined. The artist skillfully evokes the languorous atmosphere of desultory noontime work. All the German versions are very different; each defines form in great detail. The viewpoint in Reinhart's rendition is taken farther back than in the Fragonard. Sky can now be seen through the arch and under it the eye travels beyond the cascades to the immediately recognizable townscape in the background. This view does not include the buildings seen at the right in Fragonard's painting, nor is there any human activity save that of the hunter with his dogs in the foreground. The light source is high and to the left. It fully reveals the rocks and vegetation on the right of the composition and has enough reflected strength to show the other rock face on the left. Neither of these cliffs is visible in the Fragonard. Natural and architectural forms in the Reinhart are depicted with great precision and naturalism. This is even

more evident in the 1812 drawing of the identical site, entitled Tivoli, Brücke bei San Rocco (see Feuchtmayr, Abb. 64). Here the seated fisherman looks at the scene, with his back to us. We can see every detail of the surrounding rocks, plants, water torrent, and architecture, just as he can. The particularity of Reinhart's landscape can also engender a palpable mood, one of wonder at the visible fecundity of nature.

The richness and abundance of nature can be evoked in many ways. The work of many German landscape painters in Italy during the late 18th century seems concerned to make visible the variety of nature, and does so by the exact recording of visual phenomena over the entire picture surface. In this sense, particularity is a style, and in its selection and presentation of numerous different natural phenomena, it can also be a theme. In Chapter 4, I discussed late 18th century notions of plenitude, the fecundity and order of nature. Whether consciously or not, Reinhart's engravings for the Malerisch raditte Ansichten von Italien (1792-98; Figs. 23-27) present the plenitude of nature through their highly detailed rendering of such a wide range of phenomena, and thereby also connect by implication with 18th century ideas about the operations of the physical world.

Reinhart spent a great amount of time on this series, and valued it highly, as he indicates in a letter to Frauenholz (see Feuchtmayr, pp.135-36). The amount of observed detail included in each plate without overcrowding the strong compositions is remarkable. A Civita Castellana (1794; Fig.27), for example, presents a view into a steep-sided valley or gorge on top of which sits a group of exactly defined

buildings. The low viewpoint, close attention to the structural and tactile characteristics of both rock walls and individual foreground specimens, the depiction of smooth-running water (lower right), and the clear view of the architecture -- all are similar to Reinhart's particular vision in the Blick auf Tivoli (Fig.15). In the engraving, contrasts of light and the extremely fine line combine to define a great variety of forms, and, I think, to suggest the plenitude of nature. I do not know of any other landscape engraving in which the needle is used with greater precision. The detail of all these plates makes them especially intense. To choose a comparative piece of the highest quality, Le Bas's engraving of C.J. Vernet's La source abondante (painting: Salon of 1767; engraving, Fig.51), does not depict natural elements with the same precision as Reinhart's A Subiaco (1792; Fig.23). The rocks in (what I will call) the Vernet are shown in considerable detail, but still not to the same extent as those in the Reinhart. The activity of Vernet's figures focuses attention on the anecdotal theme suggested by the title; in the Reinhart we are looking on, exploring the landscape like the hunter in the foreground. And we can see it all, in its extension and minuteness. Almost all of Reinhart's landscapes in this series have a low viewpoint, forcing us to look up at an expanse of natural elements which all but exclude the sky. In the Vernet, on the other hand, the eye moves beyond the town to a distant horizon marked by ships. Reinhart's compositions - like the detail within them -- focus our attention on nature.

Joseph Anton Koch (1768-1839)

Koch underwent his formal artistic training at the Hohen Karlsschule in Stuttgart from 1785-91.³⁸ The practices of the school's "Facultät der freien Künste"³⁹ were standard for the time, and anathema to Koch. Thus in his own version of his early years, the artist stresses the artificiality of his training, and emphasizes his preference for nature. He was required to copy plaster casts and prints in a thoroughly mechanical way, though he did at least gain a familiarity with both the Netherlandish and Italianate 17th century landscape styles (Lutterotti, pp.4-5). In April, 1791, Koch got away from his teachers (Philipp Hetsch [1758-1838] and Adolf Friedrich Herper [1725-1806]) to travel south into Switzerland doing what he liked best, sketching from nature. Koch only returned to the rigors of the Karlsschule for a short time after this trip. He left for good in December of 1791, and spent 1792 in and around Bern. In this year, he was offered the opportunity to study with David in Paris (Hetsch was a former pupil of David), but refused, preferring to travel and draw in Switzerland until late 1774, when the Englishman Dr. Nott provided him with a stipend to study in Rome. The artist arrived in Italy in early 1795.

In spite of its conservative art academy, the Karlsschule gave Koch a much broader education than that attained by most of his artist peers. the school was really a university when Koch was enrolled: every subject in the arts and sciences except theology was taught, and by some of the finest professors in Germany (Luterotti, p.4; Wagner, passim). Koch received instruction in the latest theories in the physical

and biological sciences. In an early comment, he asserts that his favourite books are the Bible and the Neu Erdbeschreibung (1766-69) by the then famous natural historian Anton Friedrich Bűsching (Lutterotti,p.4). Bűsching's massive study (the 2nd ed., 1787, has 17 vols.) was one of the first works of modern geography, and remained a standard reference well into the 19th century. It sought to separate this new science from the domination of religious cosmography, as well as to give a comprehensive exposition of geographical -- and geological -- learning.⁴⁰ Bűsching proceeds in his attempt "to give an accurate and useful description of the Earth as far as it is known . . . (Preface,p.iii)," first by giving a "general account of the Polity of States and Kingdoms," and then a "particular geographical description of every country" (Preface,p.vi). Bűsching's lengthy introduction to the science of geography includes a chapter entitled "Of the Natural State of the Earth, or Physical Geography" (pp.36-53), which is subdivided into discussion of "Atmosphere", "Earth", and "Water". Under "Earth", he describes in some detail the mineral and vegetable kingdoms. Volume III of the English translation contains a description of Switzerland (pp.577-816) which includes some comment on glaciers and minerals in the Alps. Such material would, I think, have been especially interesting to the Tyrol-born Koch. To my knowledge, no critic has linked Koch's early interest in the earth science with his later reputation for geological expertise, which is so clearly visible in many of his landscapes. A partial exception is Kehrer's article, cited below, n.48. The author calls Koch's Schmadribachfall a "contribution to the morphology of the earth" (p.75), but nonetheless argues that Koch's

work anticipates later scientific theories. I hope to show that Koch's geological expertise is more than intuitive.

Koch kept a detailed diary of his travels from 26 April to 3 May, 1791.⁴¹ He records his reactions to numerous individuals and places, including two collections of natural objects. On the fourth day of the journey, Koch was shown the collection kept by monks at a cloister: "I conversed for a long time with these [monks] about the different objects . . . [in] the bountious Naturalienkabinett, which is especially choice and rich in the mineral kingdom." ["Ich unterhalte mich lange mit diesen Geistlichen über verschiedene Gegenstände, . . . das zahlreiche Naturalienkabinett, das besonders im Mineralreich ausgesucht und reich ist" (Musper,p.172).] The next day he and his travelling companion -- the artist "Roos" -- viewed another "very splendid Naturalienkabinett," especially rich in fossils." ["sehr prächtiges in Versteinerungen besonders reichhaltiges Naturalienkabinett (Musper,p.174)] . The breadth of Koch's acquaintanceship with contemporary science is indicated by his close friendship with Christian Pfaff, a well-known physiologist who taught at the Karlschule and was later a professor at Kiel University. Koch gave his travel journal to Pfaff as a gift -- for some time, commentators thought that the scientist, not the artist, was its author (Musper,p.170). The travel journal also includes meteorological observations, one of which is especially relevant to the atmospheric clarity that marks many of Koch's alpine landscapes, and most notably the Schmadribachfall (Fig.41). On the second last day of his trip, Koch remarks on "a cool Zephir which came up to freshen the surrounding dead nature, [and which] made my location much more pleasant."

["ein kühler Zephir fing an, die tote Natur umher zu erfrischen, was meinen Standpunkt um vieles angenehmer machte" (Musper, p.190)]. Koch also notes that on a similar occasion he could see at least fifty miles (Musper, p.189). It is likely that Koch refers here to one of the atmospheric phenomena, common in mountainous regions, that change the temperature dramatically, and thereby increase visibility. The clarity found in all parts of Koch's Schmadribachfall makes scale difficult to gauge, but perhaps this can be interpreted as a naturalistic depiction of a perceptual problem common in the Alps. I have mentioned that German artists seemed especially interested in phenomena associated with the earth. While Koch refers here to atmospheric events, his reference is to what happens in mountainous areas. Goethe theorized on mountains' effects on meteorological occurrences in his Italienische Reise. While it is unlikely that any direct influence obtained between Koch and Goethe, the latter's ideas were very likely shared by others in the late 18th century, and are indicative of the attention paid to such natural phenomena.

When we look at mountains, . . .
 [Goethe says] Now shrouded in mists or
 wreathed in storm-tossed clouds, now
 lashed by rain or covered with snow,
 we attribute all these phenomena to the
 atmosphere, because all its movements and
 changes are visible to the eye. To the
 eye, on the other hand, shapes of the
 mountains always remain immobile; and
 because they seem rigid, inactive and
 at rest, we believe them to be dead.
 But for a long time I have felt convin-
 ced that the most manifest atmospheric
 changes are really due to their imper-
 ceptible and secret influence. . . lati-
 tude by itself does not make a climate
 but mountain ranges do. . . . (IR, pp.31-32).

Goethe's theory of a "gravitational force" that holds clouds around mountains -- confirmed when he travelled through the Brenner Pass -- adds another scientific dimension to Koch's descriptions of Alpine phenomena.

Though he was interested in the atmosphere in relation to the earth, Koch's scientific forte was in what we would now call structural geology itself. His acquaintance, the art patron Carl Friedrich von Rumohr (1785-1843), made this point in 1832: "In landscape he is an originator: he had taught the earth forms to emit definiteness, character, and substance." ["In der Landschaft ist er Stifter; er hat gelehrt, den Erdformen Bestimmtheit, Charakter und Körper zu geben."]⁴² Friedrich von Rumohr's reference to "Charakter" might be thought to refer only to some (perhaps morally) upstanding quality, but in light of the technical connotations commonly carried by the term at this time, we can, I think, take the implications of this idea of the characteristic into account with regard to Koch's paintings and his knowledge of natural history.

In a letter to the art dealer Frauenholz dated 11 October, 1799, Koch asserts that "I also love a great execution in a painting, but it must always attach itself to the true and characteristic." ["Ich liebe auch eine grosse Ausführung, aber sie muss sich immer an das Wahre und Charakteristische anschliessen" (Lutterotti, p.141)]. The characteristic as an end in art means very much for Koch what it does for Fernow, whom he knew: the balance between particular and universal. Koch sought the

ideal in nature, but this was now a quality that included greater fidelity to natural processes and phenomena.

"Art must supply what nature lacks," says Koch, "only then is it creative." ["Die Kunst muss geben, was die Natur nicht hat, als dann nur ist sie schöpferisch"].⁴³

But his ideal nature nonetheless depends on particular observation and rendering: "The artist should and must know nature exactly in its construction and operation; but [these qualities] are not his main end, but only real means to his art-representation." ["Die Natur in ihrer Construction und Wirkung soll und muss der Künstler genau kennen; aber sie ist nicht sein hauptsächlichster Zweck, sondern nur reales Mittel seiner Kunstdarstellung"

(Gedanken, p.324)] . Koch goes on to explain that "individual imitation of particular passages of nature is an unquestionably necessary endeavour, but the apprehension of the spirit of nature is the final goal of nature study." ["individuelle Nachbildung einzelner Naturpartien ist eine unbestreitbar nöthige Bemühung; aber den Geist der Natur zu fassen, ist das eigentliche Ziel des Naturstudiums" (Gedanken,p.324).]

The characteristic is, for Koch, an ideal which mediates between the particulariy and spirit of nature. Koch's importance in the history of landscape painting is founded on his development from c.1800 of the heroic landscape style in which, as William Vaughan has aptly described it, "the classical compositions of Claude and Poussin

were revised to accommodate a more muscular, mountainous type of scenery."⁴⁴ Lutterotti maintains that Koch moved away from natural observation from the time of his arrival in Rome in 1795, when he came under the influence of Carstens and became preoccupied with mythological subjects, through the time of his greatest landscape compositions in the 1820's (Lutterotti, p.25).⁴⁵ While Carstens' vision of a monumental natural world with forms superimposed as in Michelangelo's Last Judgment certainly helped form Koch's compositions (Vaughan, 1980, p.38), I think it is also evident that Koch's continued close relations with particular nature -- spurred, in part, by his scientific knowledge -- made it possible for him to realize some of the great themes which encompass the late 18th century understanding of "the spirit of nature".

A high percentage of Koch's works in the years from 1805 to 1825 include or even take as their primary subject a detailed representation of mountain scenery, suggesting once more his special interest in the earth. The background of all three versions of his famous Heroische Landschaft mit Regenbogen (first version, 1805; see von Böttcher, Abb.I-4, II-14) is a mountain landscape, Das Lauterbrunnental bei Untersee mit Mönch und Jungfrau (1813; Lutterotti, Abb.30) is Alpine, as are the Via Mala (1804; Lutterotti, Abb.16), Das Hospiz am Grimselpass (1813; Fig.52) and the three versions of the Berner Oberland (1817, Innsbruck; Lutterotti, Abb.35). Two landscapes from this time depict the rugged landscape of Tivoli:

the Landschaft mit dem hl. Benedikt (1815; Lutterotti, Abb.38) and the three renderings of Die Wasserfälle von Tivoli (1818. Vienna; Fig.14). Three major oil compositions of the 1820's return to the Alps: Der Grindelwald-Gletscher (1823; Lutterotti, Abb.58), the Gebirgslandschaft mit See (n.d.; Lutterotti, Abb.60), and Das Reichbachtal mit der Wetterhorn (1824; Lutterotti, Abb.59). The Alpine subjects are based on numerous drawings and watercolours from 1792-94, the Italian views on the frequent sketching trips taken by Koch throughout his stay in Rome. Koch's later landscapes are at best dramatically stylized perceptions of nature as in Macbeth und die Hexen (1835; Lutterotti, Abb.73), but more often they are dry, less imaginative settings for classical and medieval narratives. Koch became interested in the nationalistic medievalizing of Friedrich Schlegel at this time: "in an attempt to get a more German character into his landscapes he moved increasingly towards a harsher style which blunted his precise linearity and turned the clear, penetrating light of his earlier works into a metallic insensitivity" (Vaughan, 1980,p.38). But I wish to discuss Koch's closer relation with empirical nature up to c.1825; these paintings are, according to Koch himself, his best, and continue his artistic development of the 1790's.

Koch tried very hard to sell his first Schmadribachfall after completing it in the spring of 1811. Referring to this work and a contrasting view of Subiaco, he claims

that people "here believe that these two pictures are the best landscapes that I have painted here [in Rome]." ["glaubt hier, dass diesen beiden Bildern die besten Landschaften seien, welche ich hier gemalt habe" (Letter to Robert Langer, 6 April 1811; Lutterotti, p.145)].

In a later letter to Langer, Koch mentions that the Schmadribachfall "is one of my most successful works." ["ist eine meiner gelungensten Arbeiten" (20 July 1811; Lutterotti, p.147)]. The inclusiveness and scope of this painting earned it the denomination "Weltlandschaft", -- universal landscape or picture -- during Koch's lifetime (Vaughan, 1980, p.110). His own account of it, delivered to another prospective buyer, Johann Peter von Langer (brother to Robert) in a letter dated 10 August 1811, suggests the great amount of natural detail which is so evident to the eye.

It presents a view in the Swiss Alps of the Lauterbrunnental. An as it were magnificent wilderness with glacial cascades, clouds -- which in part veil the mountains -- make up the background. In the middle you find an impenetrable forest of firs and other wild vegetation, and rock fragments intermixed with rushing water. The foreground is the depth of the valley -- brightened with fresh green, and with the raging current of the Steinberg Lutschuna -- into which the water pictured above rushes. Since I was born in such a mountainous region and as a child myself already enjoyed such majestic nature, the memory of it is still profoundly impressed upon me. I also possess very industrious drawings after nature from here. Here no one can ever accuse me of imitating another master;⁴⁶ I will certainly be the only one who, with this individuality and vivacity, has presented this type of scene. This picture is a true portrait after nature....

Es stellt eine Gegend aus den Schweizer Alpen des Lauterbrunnertals vor. Eine sozusagen prachtvolle Wildnis mit Gletscherkaskaden, Wolken, welche zum Teil die Gebirge umschleiern, machen den Hintergrund aus; in der Mitte befindet sich ein undurchdringlicher Wald von Tannen und anderm wilden Gewachs und Felstrummern und sturzenden Wassern vermischt. Der Vordergrund ist die Tiefe des Tales, von frischem Grün erfreut, mit dem brauenden Strom der Steinberg Lutschüna, in welche sich oben gedachte Wasser stürzen. Der ich aus einem solchen Bergland geboren bin und mich selbst als Kind solcher majestätischer Natur schon immer freute und deren Erinnerung mir noch jetzt tief eingepägt ist. Auch besitze ich sehr fleissige Zeichnungen nach der Natur hiervon. Hier wird mir wohl niemand vorwerfen, dass ich irgendeinen Meister nachgeahmt habe; werde sicher der einzige sein, der mit dieser Individualität und Lebendigkeit diese Gattungsauftritte dargestellt hat. Dieses Bild ist ein getreues Porträt nach der Natur. . . .

(Lutterotti, p.148)

Koch's written description captures the visual hallmark of this landscape, the fact that each of the three clearly identified compositional areas is equally visible, that though they are named "for-", "middle", and "background", there is very little spatial diminution. The robust diagonal lines created by the riverbanks, the edges of the forest, and the cliffs in the upper centre of the picture, form a zig-zag pattern that proceeds from bottom to top (or vice versa) in planimetric fashion, rather than moving into depth volumetrically. One can hold that Koch's composition is spatially confusing, and that it looks unnatural (see n.7, above). But Koch himself recognizes these strict surface divisions and notes the

detail in each area almost as if there were three separate viewpoints. And the painting is clearly natural to its creator. Friedrich "Maler" Müller (1749-1825) makes a special point of praising Koch's attention to natural phenomena. "It is difficult to describe in words", he says, "the qualities which this artwork sets forth, the abundance of details, the . . . great masses of which one becomes aware in rocks as well as in bushes and trees" ["^hWer ist es die Vorzüge, welche diese Kunstwerk schmücken, mit Worten anzuzeigen, den Reichtum der Details, den . . . grösserer Massen dene(n)man sowohl in Felsen als Büschen und Bäumen gewahr wird . . . "]⁴ because of the artist's use of chiaroscuro and the colour-play of light and water. Müller's lengthy description of the Schmadribachfall is based on visual metaphors. Since words are inadequate, the eye becomes the explorer of the particular nature presented by Koch. "For the eye the space widens" ["Für das Auge den Raum erweitert" (Müller,p.187)] because there is so much to see. Müller simply enumerates the natural details included by Koch for most of his enthusiastic review. To avoid the charge that Koch mechanically copied nature, he mentions that the artist worked from memory. The picture, he states, presents "the truth of the characteristic in the whole", ["die Wahrheit nach ihrem Charakter im Ganzen" (Müller,p.190)] as well as a multiplicity of natural detail.

Koch's Schmadribachfall is the epitome of a new balance between detail and the whole. One's experience in viewing the painting, does, I think, corroborate the emphasis on natural detail and variety noted by Koch and his contemporary Müller. They both assert that such detail is characteristic, that it refers simultaneously to the particular and the ideal, or what Koch calls "the spirit of nature". How should we characterize this spirit if we take the highly visible exactitude of this painting seriously? Koch focuses upon natural cycles in this work, on nature as process. We see all phases of the watercycle: glacial runoff that gathers into a torrent, mist and rainclouds collecting from the waterfall, and the fully-fledged river in the foreground. Koch also explores another aspect of water, its capacity to effect erosion.⁴⁸ The rocks in the upper third of his composition have been eaten back by water action, leaving a deep gorge into which the present currents fall. It is also possible to see this painting as a visualization of mountains' effects on the atmosphere (see above, pp. 205-06). Lutterotti suggests that Koch's work is "an intuitive essay on the morphology of the earth". ["einen intuitiven Beitrag zur Morphologie der Erde . . ." (p.59)] . But given the artist's considerable familiarity with geology and with contemporary natural history generally -- in which the notions of morphology or change were highly topical -- I think this painting can be interpreted with specific reference to late 18th century science. Perhaps a

significant part of nature's "spirit" is its change, its continuity through perpetual destruction and rebirth. The upper regions of the Schmadribachfall certainly nourish those below. In the Ode to Nature, which so closely mirrors Goethe's scientific theories, the author constantly praises nature's dynamism, concluding that "Death is her device for ensuring plenitude of life."⁴⁹ Koch presents us with just such a plenitude. The painting does not give a single view of nature or capture a moment in time.⁵⁰ The naturalist Buffon said that "Nature's great workman is Time"⁵¹ : the Schmadribachfall is a visualization of natural history conceived in this way, a natural historicism whose essence is change over time. This spirit of nature can only be evoked pictorially through the erudite representation of particular natural phenomena.

Several other landscapes by Koch combine great attention to natural detail with a sense of the majestic whole. Das Hospiz am Grimselpass (1813; Fig.52) presents fore- and middleground figures and the hospital buildings against the powerful and minutely delineated forms of a barren Alpine range. The structure and surface qualities of the distant peaks are as easily seen as the characteristics of the boulders making up the foreground. Koch's geological expertise is evident in his careful tonal and spectral definition of the mountains. This work refers back to his 1792-94 journey in the Alps, and in particular to drawings like Das Jungfrau-Massiv (Fig.53) in which

he has studied geological forms. Many of Koch's drawings are highly finished -- like Reinhart's -- and make visible a quite incredible amount of detail. Nowhere is the teeming plenitude of life more evident than in drawings like the Via Mala (Fig.54). These surfaces are completely covered with competing observations. A final example is Die Wasserfälle von Tivoli (1818; Fig.14), discussed briefly above (Chapter I, p.19). Koch was commissioned by Frau von Remich to paint these famous cascades. He finished the piece in the autumn of 1818, and tells Robert Langer in a letter "I have not yet painted such a rich picture and yet it is my success to have brought unity to it."

["so reich habe ich noch kein Bild gemalt und doch ist es mir gelungen, ein Einheit darin zu bringen" (Lutterotti, p.186)] . While he was completing the painting, Koch said it was one of his favourites because one can see in it "all that this area has that is worth seeing." ["alles . . . was diese Gegend Denkwürdiges hat zu sehen" (Lutterotti, p.187)] . Its richness stems from the quantity of nature visualized: it is "a powerful piece . . . in which an immense quantity of objects is to be seen." ["ein gewältiges Stück, . . . indem eine gewaltige Menge Gegenstände darauf vorkömmt" (Lutterotti, p.185)] . Koch goes on to explain to Langer that he worked from nature in sketches, that like the Schmadribachfall, the Tivoli canvas is a true portrait of nature: "I was in Tivoli and Subiaco some weeks ago and have seen and drawn all the beautiful sites there."

["Ich war. . . vor einigen Wochen in Tivoli und Subiaco und habe alldorten schöne Gegenden gesehen und gezeichnet" (Lutterotti, p.185)] . All parts of this encompassing view are clearly visible. As in most of his landscapes to c.1825, Koch has achieved pictorial unity and expressed the powerful spirit of nature through the particularized representation of natural phenomena.

* * *

In order to consolidate the interpretations of late 18th century German landscapes that I have put ~~forth~~ forth, I wish now to examine several themes -- important to landscape depiction at this time -- in relation to the points I have made so far. I must emphasize that I can only give an indication of how these themes fit with my own ideas.

I. The Sublime, The Picturesque, and Garden Theory

Many of the landscapes that I have considered in this chapter (or reactions to them) could be labelled "sublime" in the late 18th century sense that they focus on natural objects which have the power to move us emotionally, on those things that are immense, mysterious, or otherwise both repellent and fascinating. There is no doubt that purported sublimity attracted artists to mountain scenery especially. Koch, for example, states succinctly that

"the beautiful and the sublime are the subjects of pictorial art." ["Das Schöne und das Erhabene sind die Vorwürfe der bildenden Kunst" (Gedanken, p.324)] . All the German artists I have discussed had ample access to many sources of ideas on the sublime, those of Burke and Kant in particular. Koch's monumental Schmadribachfall engenders a sense of awe simply by its scale. I have also underlined the frontality with which Hackert, Reinhart, and Koch present the cascades at Tivoli, how they increase the effect of this natural phenomenon on one's feelings. I have not offered my thesis about the importance of particular natural phenomena and their exact depiction as an alternative to the influence of the sublime. There are even instances where these ideas might be said to overlap. Kant's notion of the sublime, for example -- as it is articulated in the Kritik der Urteilskraft -- appears to be pictured in Koch's Alpine landscapes, and especially in the Schmadribachfall (Fig.41). Kant's aesthetic theories were widely discussed amongst German thinkers in the 1790's, and Koch had direct access to Kant's views through Fernow's lectures (see p135 above); whether or not he consciously adopted these ideas, this landscape does present a characteristically German interpretation of the sublime, one which differs from Burke's emphases in significant ways, and which relies -- in part -- on the particular depiction of natural phenomena.

Though Kant underlines the fearsome aspects of the sublime which both attract and repel us, his final notion depends more on our ability to overcome this fear through understanding our own ultimate cognitive control over nature, our "pre-eminence over nature even in its immeasurability."⁵² Kant's sublime is more benevolent than Burke's, which leaves the subject in a (pleasurable) state of anxiety. For Kant, the sublime depends upon the cerebral control of the aesthetic judgment (§ 26, p.98). Though what he calls the "mathematically sublime" must be absolutely great, this quality itself assumes measurement, or a form of control. Awareness of our own powers in the face of the apparently (and frighteningly) inconceivable natural object engenders the pleasure of the sublime:

a feeling comes home to [the observer] of the inadequacy of his imagination for presenting the idea of a whole . . . and, in its fruitless efforts to extend their limit, [the imagination] recoils upon itself, but in so doing succumbs to an emotional delight.

(p.100)

In Koch's Schmadribachfall, the seemingly incomprehensible multiplicity of nature is visualized through the use of exact detail. Koch has controlled this plenitude by showing as much of the natural world as possible. "Nature," Kant says, ". . . is sublime in such of its phenomena as in their intuition convey the idea of their infinity" (p.103). Koch has given us as viewers the possibility of experiencing the sublime by controlling a vast natural spectacle, and

is in this way very close to Kant. "In the aesthetic estimate of such an immeasurable whole," Kant states, "the sublime does not lie so much in the greatness of the number, as in the fact that in our onward advance we always arrive at proportionately greater units." (p.105). This is, I believe, an apt description of our experience when moving through the regions of Koch's landscape. Turner's Hannibal Crossing the Alps, on the other hand, is closer to Burke's more frightening characterization of the sublime. His painting conveys the sense of sublimity arising from man's complete inadequacy in the face of natural forces. This sense of the sublime as a response stimulated by the vague or formless⁵³, does not apply to the German landscapes I have discussed.

The aesthetic category of the "picturesque" arose in England in the later 18th century in part as a response to Burke's division of aesthetic experience into our reactions to the beautiful and the sublime. Reynolds, Richard Payne Knight, and Sir Uvedale Price felt, in general, that Burke's categories omitted significant aspects of our aesthetic response to nature, that many admirable objects could not be grouped either with "the smoothness of the beautiful or the overwhelmingness of the sublime."⁵⁴ Picturesque views became synonymous with those appropriate for a landscape painting, those demonstrating sufficient interest, variety, contrast, and balance. In short, "the capacity for seeing nature with a painter's eye was

picturesque vision" (Hussey, p.64). Payne Knight became an important theorist of the picturesque in the 1790's. But already two decades earlier -- when he visited Sicily with Hackert and Gore in 1777 -- his pronouncements on the scenes he viewed evidence the picturesque attitude (Hussey, p.126). It is possible, then, that Hackert may have been exposed to their theories.

A large part of his work falls under the heading "Vedutenmalerei", and here he is concerned with balance, variety, and an overall pleasantness typical of the picturesque. But as contemporary commentators like Meyer and Fernow illustrate, Hackert was more than a view painter in the pejorative, mechanical sense. Here again my notion of particularity meshes with, but also augments, another influential concept. Hackert's works might be said to be detailed because they seek to represent an identifiable site in a certain way. But as I have shown, many of his landscapes depict places and phenomena which are also -- or perhaps solely -- of natural-historical interest.

I think that a similar argument pertains to the relation between particularity and another group of concerns which were becoming codified in the late 18th century as theories of landscape gardening. The English Garden style that became popular throughout Europe at this time sought to create a "studied informality"⁵⁵ for the viewer's pleasure by arranging nature. Hackert designed the English Garden at Caserta for the Queen of Naples, and

painted a view of the result in ~~1785~~¹⁸⁰⁰. But while he must have been aware of contemporary garden theory -- perhaps of the most prominent German work on the subject at this time, Friedrich C.G. von Hirschfeld's Theorie der Gartenkunst (1775-85) -- and while its canons of selection and manipulation would seem to have informed his vision and depiction of more formal views (like the English Garden at Casertà), a significant part of Hackert's oeuvre is more involved with the particular observation of natural phenomena.

In general, then, what were at the time largely unsystematic ideas which I have grouped under the heading particularity had an effect as it were alongside more fully articulated concepts like the sublime, picturesque, and theories of the English Garden. In the case of the sublime, particularity did, I think, become part of a wider notion. The idea of particularity does not overlap to the same extent with the picturesque or with garden theory, but neither should it be seen as an alternative to these ideas. Its effect was quite separate from theirs, encouraging as it did the exact depiction of new landscape sites, to whose existence and importance in the work of Hackert, Reinhart, and Koch I have sought to draw attention.

2. Particularity in the Work of Other German-Speaking Artists

The close observation and careful depiction of nature was certainly not confined to those German landscapists who worked in Italy in the late 18th century. It is, in fact, surprising to find these interests existing harmoniously in what was an extension of the 17th century Italianate landscape tradition. It is precisely because of this combination of indications that I have focused on the Germans working in the south. We would expect those artists who stayed in the north and worked largely in the mode of the 17th century Netherlandish landscape artists to be more occupied with the direct study of nature. Particularity in the work of artists whom I shall briefly consider here confirms the ~~is~~^{is} expectation, and suggests that the lessons of early training never left Hackert, Reinhart, or Koch.

As I have mentioned, Zingg, Joh. Chr. Klengel, and Ferdinand Kobell -- to mention only the most prominent names -- did form a naturalistic style in the Dutch manner. Others were more clearly occupied with natural history. I have already discussed Christoph Nathe's geological interests. An earlier example is Das Bodental mit der Roßtrappe (1769; Fig. 34) by Pascha Johann Friedrich Weitsch (1723-1802). The striking natural phenomenon here is in the Harz mountains, an area explored by numerous German artists around this time. The theme of observation

is marked by the figure sketching, and by the gestures of his companion, which carry our eyes to the explorers standing on top of the distant cliff. The focus of this landscape is the natural formation: Weitsch states in a commentary beside his signature that "the earth leads away under the rocks; one cannot come down there from the top downwards." ["die Bode geht unten am Felsen weg, dahin man nicht kommen kan von oben hinunter."] ⁵⁶

The Swiss landscape painter Caspar Wolf demonstrates an exact understanding of Alpine rock and glacial formations, down to details of stratification and erosion. ⁵⁷ His naturalistic tendencies are combined with a conventional type of composition: aerial perspective, diminution of scale, repoussoir elements, and diagonals leading into the picture combine to create what Boerlin-Brodbeck calls "a classical organization of space" (Basel, p.52). Individual natural forms are not delineated with quite the same exactitude as by Hackert, for example, but Wolf's clear presentation of the changes within nature -- erosion, glacial movement, atmospheric effects such as rainbows -- as well as his depictions of caves (Figs.30,33) can be seen as allusions to the earth's history, to a natural scale of time. His apparent fascination with the inner workings of the earth is similar to that of Hamilton, Fabris, and Hackert (Basel, p.95).

A final example is provided by the Berlin artist Carl Wilhelm Kolbe (1759-1835),⁵⁸ whose strange, overgrown, sometimes almost menacing landscapes may, I think, be understood as tributes to the plenitude of nature. In his Lebenslauf,⁵⁹ Kolbe claims first to be self-taught, but also mentions his debt to Anthonie Waterloo and Salomon Gessner. But Kolbe's closest relationship is with wild nature. He experienced individual forms -- especially gnarled oaks -- and his surroundings as a whole passionately: in nature, he exclaims, "everything moves and stimulates me, the beautiful . . . colours, . . . the infinite plentifulness of forms and the differentiation of expression." ["rührt und reizt mich alles, die schöne . . . Farbe, . . . die unendliche Mannigfaltigkeit der Formen und die Verschiedenheit des Ausdrucks"] .⁶⁰ Kolbe's engravings and drawings depict plant forms with botanical exactitude. Yet he alters scale dramatically so that figures, animals, or buildings are often dwarfed by exuberant plant growth (Fig.55). His landscapes express the dynamic being of nature on an intensive scale, just as Koch's do through their extensive clarity.

3. 17th Century Netherlandish Landscape and 18th Century Academic Training

A major impetus for the direct study and naturalistic representation of nature came from the landscape school led by Jacob van Ruisdael, Potter, Swanevelt, and Everdingen.

In spite of what we now recognize as conventionalized methods for the depiction of landscape elements -- pictorial short-hands requiring just as much (though different) selection and composition as any work by Claude, for example -- the Dutch landscapes were, in the 18th century, thought to be close to nature's "real" appearances.⁶¹ And this reputation was warranted. The variety and veracity of the vegetation in Ruisdael's Grain Field at the Edge of a Forest (1650's; Oxford, Worcester College)⁶² for example, is remarkable. Oils by these and other contemporary masters were accessible in 18th century German collections, such as the Dresden Gallery. More important to painters' educations, however, were prints after such examples. Copying these would involve close attention to represented natural detail. On the whole, such northern landscape depictions were also the authorities for studying nature in itself, since they were thought to be "real". The German artists I have discussed all received formal instruction from teachers who saw themselves in this naturalistic tradition. An attitude that nature was itself worth attention was, at the very least, a common value amongst the Germans. Reinhart collected 17th century Netherlandish ^{landscape} prints while he was in Italy, and his work often shows stylistic and thematic traces of this interest. Koch notes with some pride that he was compared favourably with Swanevelt and Ruisdael upon completing his first Schmadribachfall in oil (Letter to Peter von Langer; Lutterotti, p.148). In this

case I think we are witnessing the authority and reputation of these 17th century artists' naturalism, rather than a direct visual equation. The classical, heroic style developed by Koch and Reinhart is, according to one modern historian, the greatest achievement in German Classicism.⁶³ I have tried to explain how and why this style became particular in its attention to natural phenomena. The German involvement with nature stems in part from their familiarity with 17th century northern conventions and attitudes. This tradition would, I think, leave them receptive to specialized scientific preoccupations, the results of which this tradition cannot of itself explain.

4. Man and Nature

The relationship between man and nature as it is pictured in any landscape painting presents a methodological-critical problem. We cannot simply say that a landscape illustrates an attitude towards nature, that it is a place-marker for the Zeitgeist. Paintings are fictions; they do not simply transcribe their creator's intentions or biographical history any more than all the characters in a Shakespearean play represent the playwright. But while this separation of author, work, and historical time must be recognized, so too must controlling aspects -- "influences" -- of a community in the broadest sense, in this case, the landscape tradition, the genre itself, the media, the

artist's training, and contemporary thinking in art theory and natural philosophy. A valid and enlightening interpretation of late 18th century German landscape can, I believe, arise from the recognition of these impinging factors, and of those operating today which control one's critical responses. But this is not the same as claiming that a certain relationship between man and nature, for example, exists in any example or time.⁶⁴

Man is frequently a scientific explorer in German landscape paintings c.1770 to 1800: his presence raises the question of how we are to see the relation between man and nature in these works. In Hackert's Ansicht der Solfatara (Fig.31), the artist visualizes and re-presents the scene before him. Viewers of the landscape are implicitly encouraged to participate in this project of visual exploration by the back-facing figure -- who mimics our own corporeal orientation to the scene -- and by the immediately recognizable forms that these German paintings characteristically present. Nature is less and less strange to these artists, as the verisimilitude of their landscapes and the new sites which they chose to depict indicate. It is also less of a stage for the dramas of classical, Biblical, or mythological heroes and events. Even in narrative, historical landscapes like Koch's Dankopfer Noahs (1815; Lutterotti, Abb.42) or Landschaft mit dem hl. Benedikt 1815; Lutterotti, Abb.38), the details of observed nature are very evident. This is not totally without precedent -- I think especially of Giovanni Bellini's

St. Francis in the Wilderness in the Frick Collection, New York -- but the amount, exactitude, and importance of natural elements is new. Nature's own forms, phenomena, and cycles are more often the primary subjects of the German landscapes. In these paintings man and nature seem continuous: the contemporary figures -- hunters, artists, shepherds -- who appear most frequently are immersed in nature. It is not until Friedrich's Monk by the Sea (1809) or Wanderer Above the Sea of Mist (1810) that we perceive an ironic sense of alienation in the figures' simultaneous participation in and aloofness from nature.⁶⁵ Where man fits in the scheme of nature is a moot question. In Koch's Schmadribachfall, the foreground hunter appears as an harmonious player in nature's constant regeneration: he is there, but not specially noticeable in any way. Artists or explorers suggest a different interpretation of man's station. We are shown individuals who order and control nature intellectually, scientifically, and aesthetically.

Advances in science at this time gave people the feeling that they understood nature more completely than ever before: many of the German landscapes I have emphasized make this knowledge explicitly visible (just as the visual was the basis of the empirical method in science at this time). From this point of view man is at the top of any natural hierarchy. I argued in Chapter 3 that this scientific control was at the same time aesthetic, that in the Campi Phlegraei, for example, the two values were thoroughly intermixed and mutually supportive. It is often claimed that late 18th and early 19th century artists tend

to see nature as they feel it, that they provide the control in this sense.⁶⁶ Though it is impossible to demonstrate specifically, perhaps one source for this "subjective" control was contemporary natural history. The growing importance of the analogy between the artistic and original (divine) "creation" of nature could in part stem from artists' increased awareness of how nature operates. Yet as people discovered more about nature, their awe and wonder also tended to increase: this is the obverse of seeing man at the apex of nature. By 1800, organicism had largely replaced mechanism as the dominant model for the explanation of natural phenomena (See Chapter 4, above). Thus, despite the increase in knowledge -- or perhaps because of its ^{specific directions} -- nature could also be viewed as mysterious and infinite. Though these theories were developed in early 19th century Naturphilosophie by Schelling, Oken, and many others, as a reaction to the rigidity of the Aufklärung, tamer versions of the organic paradigm thrived in the 18th century with Herder and Goethe. And these ideas were not ignored by artists: Goethe's greatest influence on the arts came through his relationship with Philipp Hackert. Landscapes by Hackert, Reinhart, and especially Koch tend to show the implications of, say, the theory of organicism, rather than to evoke the infinitude of nature -- for example -- as Friedrich does in The Monk by the Sea by presenting the limits of our vision. For many German landscapists working around 1800, "the whole of nature . . . was conceived as essentially equal and identical",⁶⁷ yet the 18th century

German landscape artists tended to interpret the cycle-metaphor which expresses this continuity in terms of visible natural events, in terms of a universal order of which man is a part, and which he can see, understand, and represent.

5. "Neoclassicism" - "Romanticism"

Any study centring on European art c.1770-1800 must acknowledge the concepts of "neoclassicism" and "romanticism", even though these are later critical terms -- and are in this sense ahistorical -- and even if their art-historical usefulness may be diluted because of the breadth of implication carried by each term today. Because these terms have become part of our critical understanding, I think it is essential to indicate briefly how what I have said about late 18th century German landscape depiction engages these categories as they may now be construed. And both terms can be fruitfully employed at this point to bring out distinguishing traits and comparisons between artists and landscapes around 1800. Questions of how nature study was used by different artists provide an entry into the terminological and stylistic variances between "neoclassicism" and "romanticism".

Novotny emphasizes the peculiar status of landscape art in the late 18th century: "Classicist landscape painting is a phenomenon whose very existence is surprising, for it is really a contradiction in terms . . . in the Classicist

conception of the world and art there was no place for landscape . . . [only for the representation of] humanistic ideas."⁶⁸ The landscape genre was at the bottom of the art hierarchy c.1750: it was not thought to be capable of representing sufficiently grand or edifying (human) themes.⁶⁹ Even more peculiar is the naturalistic element which late 18th century German landscapists coupled with what I take to be the typical classicist's demands for unity, harmony, and greatness which could be found only in an abstracted ideal. Many artists during this time studied nature with unprecedented intensⁿity: they sensed no contradiction, nor did their patrons or collectors. Even^{though} the predominant reason given for nature study was that knowledge so gleaned made a correct selection -- and thus the attainment of la belle nature -- possible⁷⁰, there was also an increasing closeness to nature which reflected, and to some extent resulted from, the increased knowledge of natural history. The truth of nature as represented by many German landscape artists had to be more specific in keeping with the implicit demands of a more sophisticated natural history. From this "step by step . . . [increase in] closeness to nature", Novotny draws a conclusion about naturalism in general: "an art devoted to nature can flourish quite easily side by side with a grand manner with 'grandiose themes' and ambitious intellectual programmes forcibly imposed by an ideology or a patron" (Novotny, pp.86,130).

I would venture slightly farther to say that the particularity of late 18th century German landscape depiction existed not "side by side" with, but at the heart of a central thread in 18th century classicism: the Italianate landscape style. This mode of naturalism was part of the rise of the landscape genre to its commanding position in the 19th century.

The essence of "classicism lies in its sense of harmony, structure, and completeness".⁷¹ If the terms "control" and "order" may be added to these qualities, then it was to these combined ends that the landscape artists I have discussed used their detailed knowledge of nature, and it is in this way that their landscapes fit with this modern notion of Neoclassicism. Observation, exploration, and artistic representation are all ways of ordering experience. Artists like Koch, Reinhart, and Hackert as well as natural philosophers like Goethe, Raspe, and Hamilton bring about the unification of aesthetic and scientific experience via the ordering processes of visualization. The order of the natural world is expressed in Koch's landscapes by the overall and equal emphasis^a on detail. The same is true of Reinhart's engravings for the Malerisch Radirte Ansichten.⁷² For all the German artists I have focused on, the carefully structured depiction of natural elements pictures a dynamic but ordered universe as it was conceived by contemporary natural history.⁷³

"Romantic" tendencies co-exist with what I would call the generally classical propensities of these German artists. Koch developed an interest in the Nazarenes' medievalizing in his later years; all were concerned with their own emotional responses to landscape sites. Kolbe's extreme expressions of his feelings for nature suggest a more "Romantic" spirit (Vaughan,1980,p.33). The most significant test for the ultimate direction of these leanings is, however, an artist's relation to what he perceives to be his tradition as the return to earlier art -- to Poussin and Claude in the case of landscapists (Honour,p.xxiii) -- is a hallmark of Neoclassicism. In their ties with the 17th century Italianate landscape heritage, the three German artists whom I have considered most fully are exemplary neo-classicists.

6. The Landscape Tradition

The German painters' emulation of landscapes by Claude, Poussin, and Dughet ranges from general parallels of mood and shared locations, to specific borrowings and acknowledgements. Hackert refers to the guiding example of works by Claude and Dughet in the Colonna Gallery (see my Intro., p.4); Reinhart owned a copy of the Liber Veritatis, and his engraving Arricia (1793; Fig.25) uses the characteristically Claudian coulisse of trees, background buildings, and distant horizon. The dancing figures in the foreground suggest a direct link with Claude's Marriage of Isaac and Rebecca (Fig.3), then in the Galleria Doria Pamphili; the architecture and overall orthogonal solidity found in many of Koch's landscapes derives from Nicolas Poussin. The Heroische Landschaft mit Regenbogen (1805), for example, relies on a print of Poussin's Landscape with a Serpent (oil; London, N.G.) by Etienne Baudet.⁷⁴ Koch readily admits the necessary reliance upon past art in a comment on "Originality and Plagiarism in Painting": "every science and art has developed itself bit by bit," ["jede Wissenschaft und Kunst hat sich nach und nach gebildet" (Gedanken, p.327)], and on the shoulders of previous artists. But as I have shown in some detail, the German landscapes also depart in significant ways from their adopted tradition. They embody a much greater concentration on the visual and structural detail of natural phenomena, and they explore new landscape sites of special natural interest. In short, the 18th century landscapes are more particular. This characteristic difference is underscored by the German artists' works and words.

In his fragment, Ueber Landschaftsmalerei, Philipp Hackert praises the 17th century Italianate landscape masters, but warns again the mechanical copying of their work (see my Intro., p. 4). He goes on to criticize Dughet and Claude on several counts: the Dughets in the Colonna Gallery, he claims, are not harmoniously coloured; Claude's planes are not always distinct, nor are his trees accurately described (Fragmente, pp.213-14). The masters do not pay sufficiently close attention to nature.⁷⁵ Hackert corrects this fault by his own exact study, and by exploring new, untainted landscape sites. Reinhart also follows nature in greater detail and in new locations. Koch was very sensitive to criticism that he copied Pousin^S, and bolstered his own artistic integrity through an appeal to the naturalism of his Alpine landscapes (see above Chapter 2, pp.30-31 and n.⁴⁶ in this chapter). Claude's landscapes are "not views but symbols for vision".⁷⁶ They are not concerned with botanical accuracy, for example, and have a restricted range of forms that correspond to natural phenomena.⁷⁷ Each of the German landscapists makes visible the detail and extensive variety of nature. . Claude and his contemporaries perfected nature so that it was beyond contemporary man (see Eberle, pp.174-75). The artist and scientist in the German paintings are immersed in nature, exploring its phenomena. These changes do not signify a break with tradition, however, but rather the process of modification necessary to its survival.

The canon and style of 17th century Italianate landscape representation is revised to accommodate the more scientifically knowledgeable late 18th century attitude to the natural world. The continuity of this landscape tradition

is thus assured by a simultaneous reference to past and present. The particularity of the German works is not confined to one type of painting within the variety of landscape modes they distinguish,⁷⁸ but is the visualization of a new ideal formed to a considerable extent by contacts with natural history and art theory. It is not my intention to replace emphases on the sublime, 17th century models, or historical and literary allusion with the notion of particularity, but rather to see more in the neglected work of Hackert, Reinhart, Koch, and their compatriots. The individual phenomena and grand themes, such as the historicity and dynamic unity of the earth, that they depict should not, I think, be overlooked. The rainbows often found in German landscapes at this time, for example, are not only symbols of God's covenant with man (as expounded in Genesis), but also distinct meteorological phenomena. In looking at landscape depictions of around 1800 we should keep Goethe's maxim 575 in mind: "Look not only for something behind the phenomena, for these are themselves the theory."

Chapter 6

Footnotes

1 Marcel Röthlisberger, Claude Lorraine: The Drawings (Berkeley: Univ. Cal. Press, 1968), p.6.

2 Dominick LaCarpia, "Rethinking Intellectual History and Reading Texts" (History and Theory, vol.XIX, no.3, 1980, pp.245-76).

3 See the references to Hackert's importance in Münchner Landschaftsmalerei 1800-1850. Exh. cat. (Munich: Städtische Galerie im Lenbachhaus, 1979), p.15. Bruno Lohse claims that Hackert's work is a touchstone for the change from classicism to romanticism. See Jakob Philipp Hackert: Leben und Anfänge Seiner Kunst (Emsdetten: Heinrich and J. Lechte, 1936), p.2. Subsequent references to Lohse's study appear in the text.

4 Deutsche Malerei des Klassizismus und der Romantik, 1760 bis 1840 (Munich: C.H. Beck, 1978), p.31.

5 The authority of 17th century Netherlandish landscape to define "the way nature looks" -- in a mundane sense, and in contrast to the way it "is", according to theorists favouring ideal improvement -- was widespread in the late 18th century. See Münchner Landschaftsmalerei, p.13, and Boerlin-Brodbeck, Caspar Wolf (Basel: Kunstmuseum, 1980), p. 13, as well as Hans-Joachim Raupp, "Zur Bedeutung von Thema und Symbol für die holländische Landsschaftsmalerei des 17. Jahrhunderts" (Jahrbuch der Staatlichen Kunstsammlung im Baden-Württemberg, 17, 1980, pp.85-110).

6 Horst Gerson claims that 17th century Netherlandish landscape was only influential on Hackert's early work. See Ausbreitung und Nachwirkung der Holländischen Malerei des 17. Jahrhunderts (Haarlem: De Erven F. Bohn, 1942), p.303. This is true, I think, in a stylistic sense, but the interest in the close study of nature characterizes Hackert's entire oeuvre, and would have begun with his knowledge of Dutch landscape.

7 See Dagobert Frey, "Die Bildkomposition bei Joseph Anton Koch und ihre Beziehung zur Dichtung" (Wiener Jahrbuch f. Kunstgeschichte, 14, 1950, pp.195-224). In Klassizismus und Utopia (Figura 5, Stockholm, 1954), pp.178-79, Rudolf Zeitler remarks that all parts of Koch's Schmadribachfall compositions are equal in clarity and importance, and that this results in an unnatural appearance. He employs what I think is an inappropriate 19th century notion of the "natural" in this judgment.

- 8 Erik Forssman, "Jacob Philipp Hackert und Schweden" (Konsthistorisk Tidskrift, XXIV, 1954, 1-2, pp.17-34). On Hackert's early work, see also Wolfgang Krönig, "Kehrwendung der Blickrichtung in Vedeuten-Paaren von Philipp Hackert" (Walltaf-Richartz-Jahrbuch, XXX, 1968, pp.253-74).
- 9 See for example his Bauerhause, 1767, in Wolfgang Becker, Paris und die deutsche Malerei 1750-1840 (Munich: Prestel Verlag, 1971), Abb.18.
- 10 Becker, p.27. See Diderot's praise of Vernet's naturalism: Salon of 1763, (Jean Seznec, ed., Denis Diderot: Sur L'Art et Les Artistes [Paris: Hermann, 1967], pp.162-64).
- 11 Hans Wille, "Zeichnungen von Jakob Philipp Hackert im Städtischen Museum Göttingen" (Niederdeutsche Beiträge zur Kunstgeschichte, VI, 1967, pp.297-320).
- 12 The essay on landscape published by Goethe, the Prinzipien zur Erlernung der Zeichenkunst nach der Natur (Nürnberg, 1803), and the article "Zeichenkunst" which appeared in the Zeitung f.d. elegante Welt, (Leipzig, 1803, III, pp.499ff.).
- 13 "The Emergence of a Visual Language for Geological Science 1760-1840" (History of Science, 14, 3, 1976, pp.149-95), pp.172-73. Rudwick uses the illustrations to Benedict de Saussur's Voyages dans les Alpes (1779-96) as an example of scientifically uninformed illustration. I would argue that Koch's masterly Alpine depictions were made possible by the artist's knowledge of geology.
- 14 Dorothea Kuhn, "Nachwort" to C.G. Carus, Briefe über Landschaftsmalerei, Facsimilie ed., (Heidelberg: Lambert Schneider, 1972, pp.5-47), p.13.
- 15 Mattias Eberle elaborates on this point in Individuum und Landschaft: Zur Entstehung und Entwicklung der Landschaftsmalerei (Giessen: Anabas-Verlag, 1980), p.174. Subsequent refs. appear as (Eberle,).
- 16 The moot question of whether an interest in the sublime might better explain Hackert's work (and that of the other German artists I discuss) will be broached in the last part of this chapter.
- 17 See David Freedberg, Dutch Landscape Prints of the Seventeenth Century (London: British Museum, 1980), p.16.
- 18 See Barbara Novak, Art and Culture: American Landscape Painting 1825-1875 (New York: Oxford, 1980), p.56. American landscape depiction in the mid-19th century is the prime inheritor of the German interests in science and nature. It is quite likely that direct contacts exist, given the importance of immigrant landscape painters in the U.S.A. at this time.

- 19 H.A.M. Snelders, "Romanticism and Naturphilosophie in the Inorganic Natural Sciences 1797-1840: An Introductory Survey" (Studies in Romanticism, IX, 1970, pp.193-215). Sub. refs. are to (Snelders).
- 20 Alexander Gode-von Aesch discusses the temporal dimensions of natural history c.1800 in Natural Science in German Romanticism (New York: A.M.S. Press, 1966. Original, 1940), pp.76-79. He quotes Karl Ernst von Baer's 1866 statement that "the process of life can be apprehended only in a visualization of time" (p.78). This visualization of the temporal is an important theme in German landscape painting from Hackert to Friedrich.
- 21 French Landscape Drawings and Sketches of the Eighteenth Century. Exh. Cat. (London, British Museum, 1977), p.84.
- 22 Deutsche Meister 1540-1800, cat., Staatlichen Kunsthalle, Karlsruhe, 1962, No.50. See also Ernst Zinn, "Horaz im Regensboot: Anhang, Zu Philipp Hackerts 'Landschaft mit dem Knaben Horaz'" in Eranion: Fest.f.Hildebrecht Hommel (Tübingen: Max Niemeyer, 1961, pp.206-12).
- 23 Horace, Odes, trans. Theodore Martin (Boston: Ticknor and Fields, 1861).
- 24 Lawrence Gowing, "Nature and the Ideal in the Art of Claude" (Art Quarterly, Spring 1974, pp.91-97), p.93. Röthlisberger also comments on the narrow range of Claude's botanical vocabulary (Claude Lorraine: The Drawings, p.9).
- 25 Inge Feuchtmayr's excellent study may occasion a renewed appreciation of Reinhart's landscapes: Johann Christian Reinhart 1761-1847 (Munich: Prestel-Verlag, 1975). Subsequent refs. are to (Feuchtmayr).
- 26 Fernow, Sitten- und Kulturgemälde von Rom, 1802. Cited in Feuchtmayr, p.124.
- 27 Deutsche Malerei, p.62.
- 28 See Friedrich Noack, Deutsches Leben in Rom 1700 bis 1900, new ed. (Bern: Herbert Land, 1971), p.373, and Feuchtmayr, p.124.
- 29 I would like to thank Dr. David London, a geologist, for this information.
- 30 Feuchtmayr, p.56. See also Ernst Scheyer, "Christoph Nathe und die Landschaftskunst des ausgehenden 18. Jahrhunderts" (Aurora, 18, 1958, pp.33-56), p.39. The quotation at the end of this sentence is from Scheyer, p.42.

- 31 Christoph Heilmann in Münchener Landschaftsmalerei, p.17.
- 32 Zeitler discusses Reinhart's Arcadian view of nature in Klassizismus und Utopia, p.168.
- 33 Sitten- und Kulturgemälde von Rom, 1802 (Feuchtmayr, pp.123-24).
- 34 Drei Schreiben aus Rom (Dessau, 1833), with Koch, Franz Catel, Fried. Riepenhausen, J.M. von Rohden, Alb. Thorwaldsen, Ph. Veit, and Freid, Meyer. Included in this collection is Reinhart's Sendschreiben an Herrn Dr. Schorn, a biting indictment of contemporary art criticism in Germany.
- 35 The relation of the sublime to this and other works will be discussed in the last part of this chapter.
- 36 This technique for establishing scale was widely used by German landscape artists around this time, and especially by Koch.
- 37 See Chapter 1, n.22 for other German depictions of this site.
- 38 Much of my information on Koch is derived from Otto von Lutterotti, Joseph Anton Koch 1768-1839 (Berlin: Denkmaler der Kunst, 1940). Refs to Lutterotti's text and illustrations appear in my text as (Lutterotti,).
- 39 Heinrich Wagner, Geschichte der Hohen Carls-schule (Würzburg, 1850), p.235.
- 40 Ernest Plewe, "Studien über D. Anton Friedrich Büsching" in Geographische Forschungen: Fest. zum 60. Geburtstag von Hans Kinzl (Innsbruck: Universitätsverlag Wagner, 1958, pp.203-223), p.206. (see the Engl. trans. by P. Murdoch of Büsching's work: A New System of Geography (London: A Millar, 1762). Sub. refs. are to this text.
- 41 Koch's travel book is reproduced in Th. Musper, "Das Reiseskizzenbuch von Josef Anton Koch aus dem Jahre 1791" (Jahrbuch der Preussischen Kunstammlung, 1935, pp.167-93). Sub. refs. appear as (Musper,).
- 42 Drey Reisen nach Italien, 1832, cited in Johann Eckart von Bötties, Joseph Anton Koch: Heroische Landschaft mit Regenbogen (Karlsruhe: Staatliche Kunsthalle, 1967), p.9. Both Bötties and Eberle (p.216) note Koch's evident expertise in geology.

- 43 Koch, "Gedanken über ältere und neuere Malerei" in David Friedrich Strauss, ed., Kleine Schriften (Leipzig: F.A. Brockhaus, 1862, pp.303-32). Sub. refs. are to the (Gedanken,).
- 44 German Romantic Painting (New Haven: Yale Univ. Press, 1980), pp.37-38. Sub. refs are to (Vaughan, 1980,).
- 45 I mentioned in my Introduction that c.1800 was the end-point for discussions of German landscape in this thesis, but also that it would be necessary to consider works into the 1820's. In the next pages, I will discuss works by Koch up to 1825. He did not mature as an artist until after 1800, yet at the same time, the inspiration for most of the works I consider stems from his Alpine wanderings of 1792-94. Koch says in a letter from 1811, for example, that he had finished his Schmadribachfall (Leipzig version), a composition "which I had already begun more than six years ago" (Lutterotti, p.145).
- 46 As I showed in Chapter 2 (pp. 30-31) Koch was sensitive to the charge that he followed 17th century Italianate models too closely, and used the naturalism of his paintings as a defense.
- 47 "Landschafts-Malerey", (Deutsches Museum, Bd.2, 1812, 184-91), p.187. Sub. refs. appear as (Müller,).
- 48 Hugo Kehrer was to my knowledge the first to point out this aspect of Koch's painting. See "Josef Anton Koch's 'Schmadribachfall' Als Dokument Einer Wissenschaftlichen Vorahnung" (Zeit.f.bild.Kunst, 1929, 30, 72-76).
- 49 Trans. A. Arber, (Chronica Botanica, Vol.10, No.2, Summer, 1946).
- 50 Eberle notes that precise location is not as important for Koch as for view painters, though he would not likely offer this explanation. See Eberle, p.208.
- 51 Cited by Lovejoy in "Buffon and the Problem of Species" (Forerunners of Darwin, p.104).
- 52 p.111. The following refs. to the Kritik d. Urteils-kraft are from the Meredith trans., (Oxford: Clarendon Press, 1952).
- 53 See Andrew Wilton, Turner and the Sublime (London: British Museum, 1980), p.13; Raymond Immerwahr, "The Word 'Romantisch' and its History", in The Romantic Period in Germany (New York: Schocken Books, 1970, pp.34-63), p.27.

- 54 Christopher Hussey, The Picturesque: Studies in a Point of View (London: Frank Cass, 1967), p.60. Sub. refs. are to (Hussey,).
- 55 Hugh Honour, Romanticism (New York: Harper and Row, 1979), p.110. For a complete consideration of the developments and import of the English Garden style in Germany, see Adrian von Buttlar, "Englische Gärten in Deutschland: Bemerkungen zu Modifikationen ihrer Ikonologie" in "Sind Briten hier?" Relations Between British and Continental Art 1680-1880 (Augsburg: Wilhelm Fink, 1981), pp.97-125.
- 56 Herzog Anton Ulrich-Museum: Gemäldegalerie, Cat., (Braunschweig, 1969). Commentary to Abb.114.
- 57 Yvonne Boerlin-Brodbeck, Caspar Wolf, exh. cat. (Basel, Kunstmuseum, 1980), p.48. Sub. refs. to this excellent study appear as (Basel,).
- 58 The most complete work on Kolbe is Ulf Martens' Der Zeichner und Radierer C.W. Kolbe d. Ä. (1759-1835) (Berlin: Gebrüder Mann, 1976). A good collection of reproductions may be found in cat. # 38 of the Christopher Mendez Gallery (London), 1977.
- 59 Mein Lebenslauf und mein Werken im Fache der Sprache und der Kunst, 1823, p.8.
- 60 Kolbe, Letters 1795-1810, in W. Dorrow, ed., Denkschriften und Briefe zur Charakteristik der Welt und Litteratur, 4 vols., (Berlin: A. Ducker), vol.2, 1838, pp.144-75, (p.150). The letter is from Dessau, Nov., 1795. Sub. refs. are to (Kolbe,).
- 61 See D. Freedberg, Dutch Landscape Prints.
- 62 A good colour reproduction may be found in Jacob van Ruisdael, exh. cat. (Fogg Art Museum, Boston, 1982), Plate 18.
- 63 Herbert von Einem, Deutsche Malerei, p.60.
- 64 This is the tip of an elaborate critical-methodological theory whose effects upon the ways we understand any sort of history, are, I feel, highly significant. My own thinking on this subject has been guided in part by the writings of Michel Foucault, and by Stanley Fish's essays in Is There A Text In This Class? The Authority of Interpretive Communities (Cambridge, Mass.: Harvard, 1980).

- 65 I will return to landscape irony below when discussing Friedrich. For this topic, see William Vaughan, "Landscape and the 'Irony of Nature'" (Art History, Dec. 1979, pp. 457-73). The pictorial tradition of representing lone figures in the landscape is explored in detail by Hans Ost in Einsiedler und Mönche in der deutschen Malerei des 19. Jahrhunderts (Düsseldorf: Reinland Verlag, 1971). See Kapitel VIII for his discussion of Friedrich's Mönch am Meer.
- 66 Eberle, p.206. Feuchtmayr makes this point about Reinhart (p.82).
- 67 Snelders, "Romanticism and Naturphilosophie", p.195. The author does not discuss art, but general conceptions of nature at the time.
- 68 Fritz Novotny, Painting and Sculpture in Europe 1780-1880, Pelican History of Art Series (Harmondsworth: Penguin, 1960), p.67. Sub refs. are to (Novotny,).
- 69 See William Vaughan, Romantic Art (London: Thames and Hudson, 1979), p.132.
- 70 Hugh Honour, "Neo-Classicism" in The Age of Neo-Classicism (London: Royal Academy, 1972, xxi-xxix), p.xxiii. Sub. refs. are to (Honour,).
- 71 William H. Gerds, "Washington Allston and the German Romantic Classicists in Rome" (Art Quarterly, XXXII, 1969, pp.167-96), p.173.
- 72 Zeitler stresses the overall harmony of Reinhart's landscapes. Klassizismus, p.168.
- 73 In this sense, Koch is closer to Hackert than he liked to think, in spite of his condemnation of the older artist's out-moded style in the Moderne Kunstchronik, 1835.
- 74 von Börries, p.8. Few oils by Poussin were in Rome at this time (Feuchtmayr, p.83).
- 75 Hackert also criticizes the English landscapists here for looking at 17th century Italianate paintings instead of nature.
- 76 Gowing, "Nature and the Ideal", p.93.
- 77 Röthlisberger, Claude Lorraine: The Drawings, p.36.
- 78 Koch speaks of "Greek" and "Heroic" landscapes (see Börries), and also distinguishes pieces in the "character of Claude" or "taste of Gaspar" (Lutterotti, pp.149;155).

CODAFURTHER RELATIONS BETWEEN SCIENCE AND LANDSCAPE ART:CARL GUSTAV CARUS AND CASPAR DAVID FRIEDRICH

In this short section I will not attempt to trace the developments of early 19th century German landscape painting in general, or even in their relation to the natural sciences. There are simply too many new factors. What I hope to illuminate is the thematic link between theories put forward by Carl Gustav Carus (1789-1869) in his Briefe über Landschaftsmalerei¹ and the particularity of late 18th century German landscape depiction. And the link may be more than thematic: the natural science for which Carus finds an essential role in landscape art is not so different from the theories of dynamism and organicism found in the late 1700's. In fact, both Carus and the earlier artists draw on a common source: Goethe's scientific writings. Finally, I propose to briefly discuss works by Caspar David Friedrich (1774-1840) since he and Carus were close associates through much of their lives, and because what I would call the scientific naturalism found in many of Friedrich's landscapes during the time he knew Carus poses important questions about the interpretation of these works and the relationship of the two artists.

Painting was an avocation for Carus, though one he took very seriously. He was principally a scientist and medical doctor,² and wrote prolifically on scientific matters. His theoretical inclinations in aesthetics inspired the Briefe, the first letter of which was begun in 1816. Numbers one through three, plus five, were finished by 1820 and sent to Goethe in Weimar. His enthusiastic response is printed as

the introduction to the letters. Carus began the fourth letter in 1821, but a two-year pause -- during which he visited Goethe, and travelled to Switzerland and Italy -- delayed its completion until 1823. The sixth letter was also finished in this year; the seventh, eighth, and ninth followed in 1824. All nine were published in 1831, and again with several appendices in 1835 (Prause, p.45). The epistolary format has its art-historical antecedent in Gessner's Brief Über die Landschaftsmalerei, 1770, and shares with this model the advantages of informality. Each missive is addressed to "Ernst" and signed "Albertus", a reference to Carus' son Ernst Albert who had died as a child. Separate themes are considered in each letter, though there are also subjects which recur throughout the Briefe as a whole.

A significant change of emphasis comes after the 1821-23 hiatus, or between letters five and six: the first group (one through five) is subjective in its focus. Here Carus reflects on man's soul, his inner life and its relation to his perception of the inner workings of nature and finally to God. The second set (six through nine) -- written after Carus' involvement with Goethe's science -- deals more with the interconnections of landscape painting, nature, and the natural sciences.³ Letters six, seven, and eight, as well as the first appendix to the second edition ("Suggestions for a Physiognomy of Mountains" ["Andeutungen zu einer Physiognomik der Gebirge"]) are Carus' essential statement of the need for science in landscape depiction, and I shall therefore limit my exposition and comments to these sections.

At the outset of letter six Carus explains that much of his thinking has changed since he last wrote. He was moved

by Goethe's discussion of clouds in the third volume of his Zur Naturwissenschaft überhaupt, Besonders zur Morphologie (1817-24) -- which was based on Luke Howard's treatise on clouds -- and by the poem Goethe wrote in honour of Howard's studies. Carus sees Goethe's poem as the "fruit of scientific research" ["Frucht wissenschaftlicher Forschung" (Briefe, p.107)], and goes on to proclaim the need for cooperation between art and natural history. He now finds his earlier theories "naive". Carus envisions "art as the summit of science", ["Kunst als Gipfel der Wissenschaft" (Briefe, p.107)], as the means to simultaneously reveal and maintain the mysteriousness of science and nature. For Carus, natural philosophy leads ultimately to the enigmas of God's creation and control of the earth. An aesthetic-scientific understanding of nature would, he thinks, preserve this "orphic" quality. A knowledge of "the history of mountains" ["die Geschichte der Gebirge" (Briefe,p.109)] , for example, displayed in landscape art, would result in landscapes which are "in a higher sense historical"["im höhern Sinne historische" (Briefe,p.109)] than those of contemporary or past landscape painters. Carus makes it clear in letters seven and eight that an exact, detailed acquaintance with nature is necessary to reveal mysterious, grand themes such as the history of the earth, or what he proceeds to define in letter seven as the "Erdlebenbild", the "Earth-life-picture".

Carus' "Ideal of the new landscape painting"⁴ adumbrated in letter six leaves him dissatisfied with the name landscape. It is "trite . . . for it has a connotation of something of the handicrafts. . . . Another word should be . . . found, and I propose . . . the art of the earth-life-picture" (Holt,p.92). This higher form of landscape depicts

the spirit of the earth. Carus explains in letter eight that there is only one way to this goal: science (Briefe,p.136). The Academies, he says, have ignored the importance of landscape painting (Briefe,p.133); examples in this genre are "always only reminiscent of paintings and never of real nature." ["immer nur wieder an Bildern und niemals an die eigentlich Natur erinnern" (Briefe,p.135).] Carus frequently complains that "landscape nature . . . is too foreign to [most] people" in general, ["landschaftliche Natur . . . den Menschen zu Fremd ist" (Briefe,p.151)] and that landscape artists especially "have no idea how di^sastrously, how unworthily they deal with nature." ["haben keinen Begriff davon, wie unheilig, wie nichtswürdig sie die Natur behandeln" (Briefe,p.140).] At this point he criticizes Poussin's careless renditions of water, clouds, and "representation[s] of real views, [where the] lines of mountains [are] so changed, that almost no trace remains of the particular, full of character forms." ["Darstellung wirklicher Gegenden, Gebirgslinien so verändern, das von den eigenthümlichen charaktervollen Formen kaum eine Spur mehr bleibt" (Briefe,p.141)]. But Carus holds out hope for landscape in its connection with science, for Erdlebenbildkunst: "it will someday be that land-scapes will emerge [that have] higher, more meaningful beauty than those Claude and Ruisdael have painted, and yet [these landscapes] will be pure pictures of nature." ["es werden einst Landschaften höhere, bedeutungsvoller Schönheit entstehen, als sie Claude and Ruysdael gemalt haben, und doch werden . . . reine Naturbilder sein" (Briefe, Letter 6, p.111)]. Science and art must together educate the artist's eye, hand, and spirit in the intricacies of the natural world.

Of the three elements in this training, "the first and essential . . . is without doubt the education of the eye to the perception of nature in its particular, Godly life." ["das Erste und Wesentliche . . . ist ohne Zweifel die Bildung des Auges zur Wahrnehmung der Natur in ihrem eigenthümlichen, göttlichen Leben"(Brief,p.138)]. Carus focuses on the particular aspects of nature as I have described them in the main body of the thesis, on "the variety of substance in natural things", ["die Verschiedenheit der Substanz in dem Naturdingen"(Briefe,p.139)] and on the "connection . . . which abides between the individual differences of substances and certain forms." ["Beziehung . . . welch zwischen den einzelnen Substanz verschiedenheiten und gewissen Formen besteht" (Briefe,p.139) .] Again a balance between particular and universal is found in the characteristic. Carus describes drawings of mountains executed by "Geognosten" which had "so much inner life, so much [that is] characteristic" ["so viel inneres Leben, so viel Charakteristisches" (Briefe,p.144)], that he preferred them to all other depictions of these natural forms. In his "Suggestions for a Physiognomy of Mountains",⁵ he indicates how landscape art can attain the highest reality through the exact depiction of nature. This essay continues what Henrich Steffens identified in 1810 as an interest in the earth which was thoroughly German in origin.⁶ A typically German preoccupation with theories of the earth goes some way to explain the parallel emphasis found in late 18th century German landscape depictions, which is also sustained by Carus in his paintings.

The precise, scientific enlightenment of the artist's eye before nature in order to understand the physiognomy of

mountains has two parts according to Carus, an internal and an external: "the outer gives us the visual idea of the whole, the inner shows us the parts. But only both together give us the full idea of this natural body's [i.e. the earth's] essence in general." ["das Äußere gibt uns die anschauliche Idee des Ganzen, das Innere zeigt uns die Theile. Beides zusammen aber gibt erst denn vollen Begriff von dem Wesen dieses Naturkörpers überhaupt (Gebirge, p.174)]. This inner knowledge -- which supplies both the particulars and an essential part of our comprehension of the whole -- comes from geology (Gebirge, p.175). Hence Carus' prescription for the new landscape painting: "just as no dead shapes of its outline should be part of the correct understanding of an animal's essential characteristics -- but should be part of the living perception of an artistic eye -- so it only seems possible to reflect the actual type and the true particularity of mountains through a real artistic representation; in a word, through a truly geognostic landscape." ["wie indeß zur richtigen Auffassung des eigentlichen Charakters eines Thieres nicht eine todte Abformung seiner Umrisse, sondern die lebendige Auffassung eines künstlerischen Auges gehört, so scheint es nur möglich, der eigentlichen Typus und die wahre Eigenthümlichkeit eines Gebirges durch eine eigentlich künstlerische Darstellung, mit Einem Wort: durch eine wahrhaft geognostische Landschaft widerzugeben" (Gebirge, p.176)].

The exalted Erdlebenbildkunst has not yet appeared, says Carus, because "most landscape painters, . . . know nature so little in general, . . . that they have hardly any idea that a sandstone rock has a different character than a porphyry, and that this must be shown differently from a granite stone."

["die meisten Landschaftsmaler, . . . die Natur überhaupt so wenig kennen, . . . kaum eine Ahnung davon haben, daß ein Sandsteinfelsen einen andern Charakter als ein Porphyrfelsen, und dieser einen andern als der Granitfelsen zeigen müsse" (Gebirge, pp.176-77)]. In the penultimate letter of the Briefe, Carus states that the general public is even more ignorant, that they only look at the sky, for example, to determine the weather (Briefe, Letter 8, pp.151-52). But an Erdlebenbild "can open their eyes, teach [them] to differentiate the beauty of particular forms, and by and by, to become aware of the inner sense of these things with an inner happiness." ["ihre Augen öffn^{en}eten, die Schönheit der einzelnen Naturformen unterscheiden lernten und den innern Sinn dieser Dinge nach und nach mit inniger Freude gewahr werden" (Briefe, p.152)].

The final pages of the Physiognomik der Gebirge contain Carus' descriptions of different rock and mountain types, the visual information needed by landscape painters for their perception of nature's spirit and so that they may educate the public. His own landscape depictions use these detailed accounts. In 1820, Carus travelled in the Riesengebirge (see the map in Prause, p.80). In the essay on mountains -- written after this trip -- he remarks that "sometimes one still finds here great granite stones in an original position, stratified one on top of another", like the ruins of towers or walls. ["theils findet man hier noch die großen Granittafeln in ursprünglicher Lage aufeinander-geschichtet" (Gebirge, p.179)]. One example he gives is the Dreisteine formation, which he depicted in an 1826 oil (Fig. 46). This is the same type of natural phenomenon drawn by Reinhart much earlier (Fig.45; see Chapter 6, n.28), Carus sees the Riesengebirge as "Bildung der Urzeit", perhaps

following Goethe's specification of granite as the Ürstein. In the granite columns, and in the area as a whole, Carus sees earth history: "we observe here the formation of the traces of an unquiet picture, caused . . . through mechanical revolutions" of the earth. ["Wir bemerken hier die Spuren einer unruhigen, . . . durch mechanische Revolutionen bedingten Bildung" (Gebirge,p.180)]. His painting presents this eternal life of the earth. Carus also describes his experience with the most controversial rock type of the time: basalt. Basalt forms near Zittau (see the map in Prause,p.80) found pictorial delineation in his Katzenköpfe bei Zittau (1820; Prause, Abb.30), which he also entitled "Geognostische Landschaft". In 1844 Carus journeyed through England and Scotland (see map in Prause, p.85). One pictorial record of his interests is a drawing of the famous basalt columns of Fingalshöhle in the Hebrides (Fig.56). Despite this landscape's allusion to the Ossian stories, Carus' prime interest is geognostic. Another form clearly distinguished in the Physiognomik is the chalk cliff. On the Baltic island of Rügen -- which he visited in 1819 -- for example, "one sees rock face [s] fissured away by ocean currents." ["vom Meerströmmungen weggerissene Wand sich zeigt"(Gebirge,p.183)].

"Carus believed the viewer should be able to determine from the canvas the physical properties of a particular rock and to determine its geological history."⁷ His promotion of scientific research leading to detailed visualizations of of natural phenomena, which in turn could present the mysterious spirit of nature, can be seen as an extension of the late 18th century German interest in both natural history

and landscape depiction. Prause suggests that the theory of the Erdlebenbildkunst set out in the Briefe applies to C.D. Friedrich's landscapes as well as to Carus' own (Prause, p.49). There are substantial reasons for either affirmation or denial of Prause's point. The ways in which it might be accepted, are I think, significant to the way we see Friedrich's landscapes.

Friedrich and Carus were close friends throughout the period in which the letters on landscape were formulated, though they drifted apart after about 1830 (Prause, p.16). A comparison of their work shows how much Carus learned from Friedrich. Less frequently -- as in his 1824 Hochgebirge -- Friedrich borrowed directly from Carus. The keen natural observation and execution of so many Friedrich landscapes might also suggest an affinity with Carus' enthusiasm for the scientific investigation of nature. Friedrich's paintings during the time he knew Carus -- 1816-30 -- do "seem to be simple views or direct impressions of nature with only the most discreet references to allegorical meanings."⁸ There was a growing tendency towards naturalism at this time, and to some extent Friedrich can be seen to have responded to the expectation for accuracy encouraged by increased knowledge in the natural sciences. As Börsch-Suphan points out, the influence of the Norwegian Johann Christian Clausen Dahl (1788-1857) is partly responsible for this change.⁹ Dahl's scientific interests are usually exemplified by his cloud studies, but he was also concerned with more earthly phenomena (Fig.57; 1827). Can Friedrich's

landscapes of the 1820's be seen to employ scientific, and especially geological, knowledge? There are two initial objections to an affirmative answer. First, Friedrich's vehement objection in 1816 to Goethe's request that he make cloud studies for the scientist suggest that Friedrich "never came to see landscape painting as a form of scientific observation"(Vaughan, 1980,p.106). Secondly, Friedrich seems to have ruled out this type of observation in his own methods by concentrating on inner vision: "close your bodily eye, so that you may see your picture first with the spiritual eye."¹⁰ But these objections make the natural detail so evident in Friedrich's work seem even more strange and in need of explanation. We know, too, that even though contemporary pictorial and verbal descriptions by Kersting and Carus indicate that Friedrich did indeed work in a bare studio, he also used highly detailed studies from nature. These were not the basis for entire compositions, but for individual parts that were then arranged by Friedrich into his own patterns. Friedrich also made cloud studies in 1824, under the influence of Dahl. As Vaughan aptly points out, the existence of such studies does not imply that they meant for Friedrich what they did for Goethe, Dahl, or Constable (Vaughan,1980,p.104). But at the same time, "Friedrich's faithful and conscientious study of nature in everything he represented" that Dahl notes forces us to question the roles of science and naturalism in his work (passage cited in Vaughan,1980,p.66).

Friedrich's early work -- to roughly 1815¹¹-- was influenced by the Naturphilosophie of Schelling through the mediation of two friends of Friedrich, Gotthilf Heinrich Schubert and Christian August Semler (Sumowski, p.17). Landscapes like The Cross in the Mountains (1807-08) -- for which Semler wrote an interpretive description -- demonstrate an overt symbolic use of natural elements which is very close to the theories expounded by Schelling in his essay Concerning the Relationship of the Fine Arts to Nature (1807). If Friedrich's early landscapes reflect an interest in one manifestation of the contemporary sciences -- Naturphilosophie -- I would argue that he continued to work with an awareness of and sympathy for natural history, even as its emphases changed with Carus' later letters on landscape. Letters six through eight suggest a realistic rather than symbolic use of landscape (Sumowski, p.19). And there are several remarkable parallels between Friedrich's landscapes of the 1820's and theoretical expositions by Carus. In comparing them, I do not want to claim that Friedrich explicitly illustrates what Carus says, but that their ways of viewing nature -- and hence their mutual need for particularity -- are similar. This comparison may also help to explain the greater visual detail found in the landscapes of Friedrich's middle period.

Carus' description of the eroded chalk cliffs on Rügen (see above, p.251) is visualized in Friedrich's

Chalk Cliffs on Rügen, 1819. And this is not an isolated example of Friedrich's exact attention to rock physiognomy. The rock columns which appear mysteriously in Der Watzmann (1824-25; Fig. 47) -- granitic forms which would not be seen in the Alps -- are of the same type as shown in Carus' Dreisteine (Fig. 46), and with which Friedrich was familiar from his 1810 trip in the Riesengebirge (see the Map in Prause, p. 80). Other natural phenomena are presented with similar exactitude. The blocks of ice in The Sea of Ice (1823-24; Fig. 58) are taken from Friedrich's studies of ice on the Elbe (Fig. 59). Carus includes a description of ice in this exact location from January of 1821 in the second edition of his Briefe (pp. 205-08).

From Friedrich's own apparent dismissal of the scientific -- he claimed that the cloud studies Goethe wanted him to execute in 1816 would be the ruin of art -- it is possible to understand his painstaking representations of the natural world as strictly secondary to the confrontation with the amaterial, spiritual realm which is so clearly an element of his oeuvre. This metaphysical contrast between the earthly and transcendental can also justify allegorical readings of his paintings, such as those devised by Börsch-Suphan.¹² But we must, I think, do more than transcend the naturalism of Friedrich's landscapes. A more illuminating approach is to see the tension between naturalistic rendering and spiritual import in terms of early 19th century theories of "irony", as Vaughan does.¹³

In this case, there is a rationale for strong naturalism, since the greater the expectation is of seeing simply a piece of nature, the stronger the irony becomes when this expectation is denied by the frequent allusions to spiritual themes. But I think it is also possible to interpret many of Friedrich's landscapes as intimations of the overriding themes and forces of nature, and to understand his detailed depictions of natural phenomena as embodiments of these themes.

The ice forms in the foreground of The Sea of Ice (Fig.58) are darker than would be expected; they are even telluric, perhaps because Friedrich drew from ice along the banks of the Elbe. The vertical piling of these blocks suggests the stratification of rock as well as ice, and their contortion throughout the painting can be seen as a reference to geological movement, or ultimately, to the essential dynamism of nature, which digests everything in order to accomplish renewal. This natural cycle also appears on a smaller scale in the closely delineated states of the ice -- frozen, melting, liquid -- easily seen in the painting's foreground. Time, change, transience are intimated in purely natural terms. For Friedrich, as for Carus in the seventh letter of his Briefe, large and small natural phenomena can illustrate the earth's life equally well (see Holt, p.92). Carus also claimed that "evidence of the life of mankind . . . completes the earth-life and its artistic representation and consequently, men

and the work of men can appear well in a true picture of earth-life, provided the description of the earth-life dominates" (Holt,p.93). The ship here clearly represents man and his hopes, but the ice prevails in this powerful landscape.

Recognition of additional scientific themes could augment our interpretations of other Friedrich landscapes. Knowledge of the scientific preoccupation c.1800 with the development of life (see my Chapter 4, above) could be one reason for Friedrich's interest in the cycle of human evolution as pictured in the so-called Stages of Life (1835) and Times of Day (1821). The natural-historical import of Friedrich's numerous depictions of caves should also be recognized. The cave in his Skeletons in the Stalactite Cave (1834, Sepia; Fig.60) is certainly a tomb, but it is at the same time a natural phenomenon redolent with associations about the inner workings and history of the earth (see pp. 39-40, above). Friedrich's exact depiction of the cave suggests an interest in these processes of transformation, as well as in that from human life to death. Similarly, in the Grave of a Freedom Fighter (Fig.61) the tomb with its political reference to German resistance to Napoleon's invasion, is small and not outstanding in the composition. What one sees first is the cave, natural rather than political history. Börsch-Suphan interprets a roughly contemporary

drawing of a cave/grave -- the 1811 Harzhöhle¹⁴ -- and other similar images as "Vanitassymbole". While we may wish to confirm this reading, we can now also demonstrate how Friedrich combines this sort of transcendent meaning with a more literal attention to telluric phenomena and their concomitant associations with natural change.

From his association with Carus from 1816-30, Friedrich may be presumed to have had considerable acquaintance with a natural history which emphasized the earth. Whether consciously or not, he often used this knowledge in his landscapes. Consistent with his own desire to evoke a reflective, spiritual mood with his images, many of these paintings can -- especially in light of the tradition of natural history in German landscape painting which I have discussed -- be interpreted as visualizations of natural transience and mystery. Friedrich's particularized observation and depiction of natural phenomena allows us to see these themes in his landscapes, not simply through them.

CODA: Footnotes

- 1 C.G.Carus, Briefe über Landschaftsmalerei, 2nd ed.,1835. Facsimile ed. (Heidelberg: Lambert Schneider, 1972). Sub.refs. appear as (Briefe,p.no.)
- 2 For a complete biographical history and details regarding Carus' fame as a doctor and professor of anatomy, physiology, and gynaecology, see the excellent study by Marianne Prause, Carl Gustav Carus :Leben und Werk (Berlin: Deutschen Verlag f. Kunstwissenschaft, 1968). Sub.refs are to (Prause,)
- 3 See Prause, pp.45-49 on the contents of individual letters, and p.48 regarding the division of the Briefe into two groups. On this point, see also Vaughan, 1980,p.129. I am also indebted to Kim Bertram of Toronto for her observations on the structure of Carus' letters.
- 4 The central passages from letter seven are translated by Elizabeth Holt in A Documentary History of Art, Vol.3 (New York, Anchor Books, pp.92-3). This quotation, p.92. Sub.refs. to this trans. appear as (Holt,).
- 5 This essay is the first appendix to the 1835 ed. of the Briefe. Sub. refs. are to the (Gebirge,).
- 6 Heinrich Steffens, Geognostisch-geologische Aufsätze als Vorbereitung zu einer innern Naturgeschichte der Erde (Hamburg: B.G.Hoffmann, 1810) p.147.
- 7 Gert Schiff, "An Epoch of Longing: An Introduction to German Painting of the Nineteenth Century" in German Masters of the Nineteenth Century Exh.Cat., (New York and Toronto, 1981, pp.9-39), p.15
- 8 Helmut Börsch-Suphan, catalogue to 1972 Tate exh., Caspar David Friedrich, p.75
- 9 See also Werner Sumowski, Caspar David Friedrich Studien (Wiesbaden: Franz Steiner, 1970), p.37. Sub.refs. are to (Sumowski,).
- 10 Cited in William Vaughan, "Documents and Reminiscences," in Caspar David Friedrich 1774-1840 Tate Gallery,1972, pp.102-109), p.103.

CODA : Footnotes

- 11 I am following Börsch-Suphan's divisions (see n.8).
- 12 See especially H.Börsch-Suphan and K.-W.Jähniq, Caspar David Friedrich: Gemälde, Druckgraphik und bildmässige Zeichnungen (Munich: Deutsche Verein f. Kunstwissenschaft, 1974-75).
- 13 William Vaughan, "Landscape and the 'Irony of Nature'", pp.457-75.
- 14 Börsch-Suphan, Jähniq, C.D.Friedrich, cat.471.

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