

Caspar David Friedrich and the Catachthonic Cultures of Romantic Science and Technology

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I, Catherine L. Clinger, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

ABSTRACT

My thesis, 'Caspar David Friedrich and the Catachthonic Cultures of Romantic Science and Technology,' investigates the work of the German Romantic painter Caspar David Friedrich (1774-1840) in relation to subterranean worlds, the vernacular of the mining profession, and certain text-based representations found in scientific, technological, and popular culture publications concerned with speleological explorations and the mining industry. The purpose of this thesis is to re-describe key works within the oeuvre of Caspar David Friedrich as belonging to the culture of *Bergwesen*, and in so doing, provide evidence to support the claim that these works contribute to the symbolic, allegorical and technological cultures of the subterranean world in Germany.

Arguing that before we know what something in a painting means, we first have to know what it is, I recover the original identity of particular features within individual paintings by Friedrich. I situate this work in a cultural context that has yet to be explored in the scholarship. The images within the rarely studied technological volumes which I examine were 'practically embedded artworks' that served as important role in the visual culture of the Romantic Age although they might not have qualified as meaningful art in Hegelian terms. Further to this, relevant artefacts to the enquiry may be found in an archaeology of human intervention in the domain of the mountain – a location usually reserved in scholarship for theoretical enquiries into notions of spectatorship, human and nature interface, and interpretative subjectivities; not as a site for the excavation of legible matter of a technological nature.

TABLE OF CONTENTS

<i>List of Figures</i>	6
I. INTRODUCTION	25
II. MINES, FORGES, AND TUNNELS	38
1. The Fact of a Comparative and Contrasting Position	39
2. Not a Dwelling but a Bridge to the Underworld	46
3. The Conical Structure	60
4. <i>Gewölbetheorie</i> and Deforestation	67
5. A Rainbow, Porcelain, and Not-Other	77
6. Graves, Thistles, Will and Chance	90
7. An Elliptical Foundry	107
8. Adits, Jewellery and Iron Filings	112
9. The Subversion of Allegory	119
III. THE CAVE AS VAULT	128
1. Skeletons in the Cave	129
2. Ossian, the Grünes Gewölbe and the Cave Bear	146
3. The Views from Within	163
4. The Light from Above Penetrating the Matter of Below and Lucretius	181
5. <i>Strenge Regulärität</i>	195
6. The Cave in the Harz and the Faces in the Rock	201
7. Threshold to Mythologized History	224

IV. PHYSIO-PHILOSOPHICAL TOPOGRAPHY	236
1. The Source at the Surface	237
2. The Harz Mountains	256
3. The Wanderer and Lorenz Oken’s Thought	263
4. The Woman Before a Setting Sun	278
 IV. CONCLUSION	 292
 <i>Catalogue of Figures</i>	 297
 <i>Bibliography</i>	 486

LIST OF FIGURES

Chapter One

1.1. *The Hut in the Snow*, Oil on linen, 31 x 25 cm, Berlin, Nationalgalerie, 1827.

1.2. *The Vault*, Oil on linen, 31 x 25 cm, Gemäldegalerie, Dresden, 1827.

1.3. *The Hut in the Snow*, detail.

1.4. *The Vault*, detail.

1.5. *The Hut in the Snow*, detail, 1827.

1.6. *The White Horse of Westphalia above a mining scene in the Harz Mountains*, Silver 4-Thalers of Christian Ludwig, Duke of Brunswick-Lüneberg, British Museum, London, 1662.

Chapter Two

2.1.

The Vault

Oil on linen, 31 x 25 cm

Gemäldegalerie, Dresden

1827

2.2.

The Vault

Graphite and sepia, 22.8 x 19.3 cm

Winterstein Collection.

After 1835

2.3.

The Vault

Graphite and watercolour, 27.5 x 21.5 cm

Hamburg Kunsthalle

1824

2.4.

The Hut in the Snow

Oil on linen, 31 x 25 cm

Berlin, Nationalgalerie

1827

- 2.5. Karl Friedrich Schinkel, *Das Felsentor*, Oil on linen, 74 x 48 cm, Nationalgalerie, Berlin, 1818.
- 2.6. Jakob Philipp Hackert, *Landschaft mit der verlassenen Ariande auf Naxos*, Oil on canvas, 65 x 89 cm, Kurpfälzisches, Heidelberg, 1803.
- 2.7. Franz Kobell, *Waldlandschaft mit Raub der Proserpina vor dem Eingang zur Unterwelt*, Pencil, 33.1 x 61.3 cm, Kunstsammlungen Weimar, 1810s.
- 2.8. Caspar Wolf, *Die Drachenhöhle bei Stans*, watercolour and gouache, 31 x 46 cm, Aargauer Kunsthaus, 1775.
- 2.9. Caspar Wolf, *Höhlenansicht*, oil on canvas, 72 x 90 cm, Private Collection, 1770-1779.
- 2.10. J. Pass, *Stephenson's Lamp and Davy's Lamp*, 'Encyclopaedia Londinensis, or, Universal Dictionary of Arts, Sciences, and Literature' published in London, 1810-1829.
- 2.11. Johann Alexander Thiele, *Ein Grund zwischen Freiberg und Frauenstein*, Oil on canvas, 117 x 168 cm, Dresden Gemäldegalerie Alte Meister, 1749.
- 2.12. Johann Alexander Thiele, *Ausblick vom Mückentürmchen nach Sachsen* Oil on canvas, 105 x 165.6 cm, Dresden Gemäldegalerie Alte Meister, 1740.
- 2.13.
Solitary Tree
Oil on canvas, 55 x 71 cm.
Nationalgalerie, Berlin
1821
- 2.14. Charles Eisen, *Frontispiece*, etching, from Abbé Marc-Antoine Laugier, *Essai sur l'architecture*, 1753.
- 2.15.
Coastal Landscape with Cross and Statue
Sepia, 40 x 58 cm.
Berlin, Kupferstichkabinett
1830
- 2.16.
Forest Interior by Moonlight
Oil on canvas, 70 x 49 cm.
Nationalgalerie, Berlin
1823-1830

2.17. Photograph of a *Quellungshöhle* in the Harz mountains

2.18.

Winterlandschaft

Oil on canvas, 21 x 30 cm

Private Collection, Zittau

1827

2.19. Photograph of the entrance to a cave that was mined for iron in the Iberg mountain in the Harz.

2.20. *Titlepage*, (engraving, 25 x 19 cm), Christophe Traugott Delius, *Anleitung zu der Bergbaukunst, nach ihrer Theorie und Ausübung, nebst einer Abhandlung von den Grundsätzen der Berg-Kammeralwissenschaft*, Wien, 1773.

2.21. *detail, Titlepage*, Delius, *Anleitung zu der Bergbaukunst*.

2.22. Johann Alexander Thiele, *Ausblick vom Mückentürmchen nach Böhmen*, oil on canvas, 104 x 52 cm, 1739.

2.23. Assner after Comté de Dietrichstein, *Plate I*, (engraving, 22 x 35.5 cm), Christophe Traugott Delius, *Anleitung zu der Bergbaukunst, nach ihrer Theorie und Ausübung, nebst einer Abhandlung von den Grundsätzen der Berg-Kammeralwissenschaft*, Wien, 1773, *Plate I*.

2.24. *detail, Plate I*, Delius, *Anleitung zu der Bergbaukunst*.

2.25. *Plate 12, Blaufarbenältester*, in G. E. Rost, *Trachten der Berg- und Hüttenleute im Königreiche Sachsen: nach dem neuesten Reglement mit landschaftlichen Umgebungen aus den verschiedenen Bergamtsrevieren nach der Natur gezeichnet*, (Freiberg, 1831), *Plate 12*.

2.26. *detail, Plate 12*, G. E. Rost's *Trachten der Berg- und Hüttenleute*.

2.27. Bernard, *Plate 8*, (etching, 25 x 19 cm), from Gabriel Jars, *Voyages metallurgiques, ou Recherches et Observations sur les mines et forges de fer La Fabrication de l'acier, celled u fer-blanc, des plusieurs mines de charbon de terre, faites depuis l'anne 1757 jueques & compris 1769, en Allemagne, Suede, Norwege, Angleterre et Ecosse. Suivies d'un Mémoire sur la circulation de l'air dans les mines, et d'une notice de la Jurisprudence des mines de Charbon dans le Pays de Liege*, Lyon 1774-1781, *Plate 8*.

2.28. *detail, Plate 8*, Gabriel Jars *Voyages metallurgiques*.

- 2.29. Part 1, *Clausthal*, (etching, 33.2 x 29 cm), from Henning Calvoer, *Acta Historico-Chronologico-Mechanica circa metallurgiam in Hercynia superiori. Oder historisch-chronologische Nachricht und theoretische und practische Beschreibung des Maschinenwesens, und der Huelfsmittel bey dem Bergbau auf dem Oberharze, darin insbesondere gehandelt wird von denen Maschinen und Huelfsmitteln, wodurch der Bergbau befoerdert wird, als von dem Markscheiden, Schacht- und Grubenbau, von Bohren und Schiessen*, Braunschweig, Verlag der Fuerstl. Waysenhaus-Buchhandlung, vol. 2, 1763, Plate IV.
- 2.30. Part 2, *Clausthal*, (etching, 33.2 x 29 cm), from Henning Calvoer, *Acta Historico-Chronologico-Mechanica*, Braunschweig, Verlag der Fuerstl. Waysenhaus-Buchhandlung, vol. 2, 1763, Plate IV.
- 2.31. Part 3, *Clausthal*, (etching, 33.2 x 29 cm), from Henning Calvoer, *Acta Historico-Chronologico-Mechanica*, Braunschweig, Verlag der Fuerstl. Waysenhaus-Buchhandlung, vol. 2, 1763, Plate IV.
- 2.32. detail, Part I, *Clausthal*, from Henning Calvoer, *Acta Historico-Chronologico-Mechanica*, Braunschweig, Verlag der Fuerstl. Waysenhaus-Buchhandlung, vol. 2, 1763, Plate IV.
- 2.33. Assner after Comté de Dietrichstein, *Plate VII*, (engraving, 25 x 38.5 cm), Christophe Traugott Delius, *Anleitung zu der Bergbaukunst, nach ihrer Theorie und Ausübung, nebst einer Abhandlung von den Grundsätzen der Berg-Kammeralwissenschaft*, Wien, 1773.
- 2.34. Assner, *Plate III*, (engraving, 25 x 38.5 cm), Christophe Traugott Delius, *Anleitung zu der Bergbaukunst, nach ihrer Theorie und Ausübung, nebst einer Abhandlung von den Grundsätzen der Berg-Kammeralwissenschaft*, Wien, 1773.
- 2.35. *Plate XXII*, (engraving, 25 x 38.5 cm), Christophe Traugott Delius, *Anleitung zu der Bergbaukunst, nach ihrer Theorie und Ausübung, nebst einer Abhandlung von den Grundsätzen der Berg-Kammeralwissenschaft*, Wien, 1773.
- 2.36. *Plate XII*, (engraving, 25 x 38.5 cm), Christophe Traugott Delius, *Anleitung zu der Bergbaukunst, nach ihrer Theorie und Ausübung, nebst einer Abhandlung von den Grundsätzen der Berg-Kammeralwissenschaft*, Wien, 1773.
- 2.37. *Stellt ein so genanntes Ort aus dem Sauberge zu Ehrenfriederdorf vor*, (engraving, 24.4 x 20 cm), from Johann Friedrich Wilhelm von Charpentier, *Mineralogische Geographie der chursächsischen Lande*, Leipzig: Siegfried Labrecht Crucius, 1778, Plate 2.
- 2.38. *Sachsen Bergmann in Arbeitstracht*, in G. E. Rost, *Trachten der Berg- und Hüttenleute im Königreiche Sachsen*, (Freiberg, 1831), Plate 1.

2.39. Christophe Weigel, 'Der Ober Steiger,' (etching/engraving, actual size), from Christophe Weigel *Bildnisse aller Hütten Beambten und Bedienten*, Vol. I, Nürnberg, 1724, Plate 14.

2.40. *Stellt ein dergleichen Ort aus dem so genannten Stockwerke zu Geyer vor*, (engraving, 24.4 x 20 cm), from Johann Friedrich Wilhelm von Charpentier, *Mineralogische Geographie der chursächsischen Lande*, Leipzig: Siegfried Labrecht Crucius, 1778, Plate 3.

2.41. Bernard, *Plate 19*, (etching, 29 x 22.3 cm), from Gabriel Jars, *Voyages metallurgiques, ou Recherches et Observations sur les mines et forges de fer La Fabrication de l'acier, celled u fer-blanc, des plusieurs mines de charbon de terre, faites depuis l'anne 1757 jueques & compris 1769, en Allemagne, Suede, Norwege, Angleterre et Ecosse. Suivies d'un Mémoire sur la circulation de l'air dans les mines, et d'une notice de la Jurisprudence des mines de Charbon dans le Pays de Liege*, Lyon 1774-1781, Plate 19.

2.42. Bernard, *Plate 7*, (etching, 22.3 x 29 cm), from Gabriel Jars, *Voyages metallurgiques, ou Recherches et Observations sur les mines et forges*, Lyon 1774-1781, Plate 7.

2.43. *Grund und Seigerriss des Holzkobten Bergwekes zu Beuchlitz ohnweit Lauchstaedt*, (etching, 35 x 25.5 cm), from Johann Friedrich Lempe, *Magazin für die Bergbaukunde*, Vol. 7, Dresden, 1793.

2.44. F. X. Würth, (etched by T. E. Mansfeld), *Title-page*, (etching, actual size), Antoine-Marie Héron de Villefosse, *Atlas de la Richesse Minérale, e, recueil de faits géognostiques et de faits industriels, constatant l'état actuel de l'art des mines et usines, par des exemples authentiques, tirés de célèbres établissemens, et rendus sensibles à l'oeil, au moyen de la représentation géométrique des objets*, Paris, 1819.

2.45.

Im Steinbruch, den 15 Juli 1812

Graphite, 28.4 x 20.4 cm

Kupferstichkabinett in Dresden

2.46.

Krippen den 19 Juli 1813

Graphite and watercolour, 21 x 17.4 cm

Berlin Kupferstichkabinett

2.47.

Mountain Landscape with Rainbow

Oil on Canvas, 70 x 102 cm

Museum Folkwang, Essen

1810

2.48.

12 May 1808

Graphite, 35.8 x 23.5 cm

Dresden Kupferstichkabinett

2.49. *Freyberger Hüttenmann im Parade*, in G. E. Rost, *Trachten der Berg- und Hüttenleute im Königreiche Sachsen*, (Freiberg, 1831), Plate 5.

2.50.

Landscape with Rainbow

Oil on canvas, 59 x 84.5 cm

Staatliche Kunstsammlungen, Weimar (lost)

1810

2.51. *Altenberger Steiger in Paradekleidung*, in G. E. Rost, *Trachten der Berg- und Hüttenleute im Königreiche Sachsen*, (Freiberg, 1831), Plate 17.

2.52. *Oberberghauptmann*, in G. E. Rost, *Trachten der Berg- und Hüttenleute im Königreiche Sachsen*, (Freiberg, 1831), Plate 26.

2.53. *Frontispiece*, (etching/engraving, actual size), from Christophe Weigel *Bildnisse aller Hütten Beambten und Bedienten*, Vol. I, Nürnberg, 1724.

2.54. Johann Joachim Kaendler and Peter Reinicke, *Der Unter Steiger*, Porzellan Galerie, Dresden, 1750.

2.55. Christophe Weigel, 'Ein Unter Steiger,' (etching/engraving, actual size), from Christophe Weigel *Bildnisse aller Hütten Beambten und Bedienten*, Vol. I, Nürnberg, 1724, Plate 15.

2.56. *detail*, Elder Tree, *Mountain Landscape with Rainbow*

2.57. *detail*, figure, *Mountain Landscape with Rainbow*

2.58. *detail*, *Archiv für Mineralogie*, Carl Gustav Carus on 7 October 1828.

2.59. J. G. Schmidt after Charpentier, *Plate 6*, (engraving, 25 x 19.5 cm), from Johann Friedrich Wilhelm von Charpentier, *Beobachtungen über die Lagerstätte der Erze hauptsächlich aus den Sächsischen Gebirgen. Ein Beytrag zur Geognosie*, Leipzig: bey Georg Joachim Göschen, 1799, Plate 6.

2.60. Christophe Weigel, 'Ein Ruthen-Gänger,' (etching/engraving, actual size), from Christophe Weigel, *Bildnisse aller Hütten Beambten und Bedienten*, Vol. I, Nürnberg, 1724, Plate 18.

2.61. Georgius Agricola, *De re metallica*, sole image from Book 2, 1556.

2.62.

Sarg auf einem frischen Grab

Graphite and sepia, 39.2 x 39.4 cm.

Pushkin Museum, Moscow

1836-37

2.63. *Titlepage*, (etching, actual size), from Johann Friedrich Lempe, *Magazin für die Bergbaukunde*, Vol. 10, Dresden, 1793.

2.64. *Christ as the Man of Sorrows*, hand-coloured woodcut, 19.7 x 13.7 cm, South German, National Gallery of Art, Washington, 1430-40.

2.65. *Christ as the Man of Sorrows*, hand-coloured woodcut, 17 x 10.6 cm, Swabian, National Gallery of Art, Washington, 1480-1500.

2.66. Daniel Nikolaus Chodowiecki, *untitled*, (etching, 4.3 x 6.2 cm), for Theodor Gottlieb von Hippel's *Lebensläufe nach aufsteigender*, 1778-81.

2.67. Daniel Nikolaus Chodowiecki, *untitled*, (etching, 4.3 x 6.2 cm), for Theodor Gottlieb von Hippel's *Lebensläufe nach aufsteigender*, 1778-81.

2.68. Daniel Nikolaus Chodowiecki, *untitled*, (etching, 6 x 6 cm), for Theodor Gottlieb von Hippel's *Lebensläufe nach aufsteigender*, 1778-81.

2.69. Johann Christoph Erhard, *Friedhof in Hallstadt*, pencil and watercolour, 17.1 x 23.7 cm, Hamburg, Kunsthalle, 1814.

2.70. Anonymous, *Work-Table for the 3rd Degree*, watercolour, Stuttgart, 1780.

2.71.

Philipp Otto Runge

Downfall of the Fatherland

Pen and ink, 35.4 x 23.6 cm

Hamburg, Kunsthalle

1809

2.72. *Truss Design*, Carl Ludwig Althans, *Sayner Hütte, Giesshalle* (Casting shed of the Sayn bei Neuweid Ironworks), Bendorf, Germany, 1830.

2.73. Lithograph based on a drawing by C. Osterwald of Carl Ludwig Althans', *Sayner Hütte, Giesshalle* (Casting shed of the Sayn bei Neuweid Ironworks), Bendorf, Germany, 1830.

2.74. New Year's plaque (*Neujahrplakette*), iron, Sayner Hütte, Kunstguss, Neujahrplakette zu 1818, Sayn bei Neuweid Archiv.

2.75. Photograph of the *Rothschönberger Stolln*.

2.76.

Churchyard

Oil on canvas, 31 x 25.2 cm.

Bremen Kunsthalle

1822

2.77.

The Entrance to the Plauener Churchyard

Oil on canvas, 38 x 33.5 cm.

Private Collection

1822

2.78 Johann Conrad Philipp Geiss, Iron tiara, 16.5 cm, The Hunt Museum, Limerick, Ireland, 1815.

2.79. *A Prussian Iron Brooch*, private collection, circa 1815.

2.80. *Prussian Iron Standing Clock*, iron and bronze, Gliwice Museum, 19th C.

2.81. Gottlob Friedrich Thormeyer, *Theodor Körner's grave near Wöbbelin*, etching and engraving by Johann Adolph Darnstedt, 30.3 x 22.5cm, British Museum, 1814.

2.82. Carl Gustav Carus, *Woman on the Terrace*, Oil on canvas, 42 x 29 cm, Galerie Neue Meister, Dresden, 1824.

2.83.

detail, Woman Before the Setting Sun

Oil on canvas, 22 x 30 cm

Museum Folkwang, Essen

1818

2.84. *Freyberger Hüttenmann*, in G. E. Rost, *Trachten der Berg- und Hüttenleute im Königreiche Sachsen : nach dem neuesten Reglement mit landschaftlichen Umgebungen aus den verschiedenen Bergamtsrevieren nach der Natur gezeichnet*, (Freiberg, 1831), Plate 6.

Chapter Three

3.1.

Skeletons in Cave

Graphite and Sepia, 18.8 x 27.5 cm.

Hamburger Kunsthalle, Hamburg.

1826

3.2. *In der Sibyllengrotte am Avernensee*, (etching, actual size), from Karl Friedrich Benkowitz, *Reisen von Neapal in die umliegenden Gegenden*, (Berlin, 1806), p. 101.

3.3. Christophe Weigel, 'Der Berg-Schreiber,' (etching/engraving, actual size), from Christophe Weigel *Bildnisse aller Hütten Beambten und Bedienten*, Vol. I, Nürnberg, 1724, Plate 7.

3.4 *Vertical Section of the Cavern at Gailenreuth in Franconia*, (lithograph, 20.4 x 26 cm), from William Buckland, *Reliquiæ Diluvianæ; or Observations on the organic remains, contained in caves, fissures and diluvial gravel, and on other geological phenomena, attesting the action of an universal deluge*, John Murray: London, 1823, Plate XVII.

3.5.
Two Men Contemplating the Moon
Oil on canvas; 34.9 x 44.1 cm
Gemäldegalerie Neue Meister, Dresden
1819

3.6.
Two Men Contemplating the Moon
Oil on canvas, 34.9 x 43.8 cm
Metropolitan Museum, New York
1830

3.7.
Woman and Man Contemplating the Moon
Oil on canvas, 34 x 44.1 cm.
Berlin, Nationalgalerie
1824

3.8. Weigel, *Man o War (eines Capital Krieg-Schiffs)*, engraving, 20.4 x 24 cm, 1717.

3.9. Two views of a Bacchus Figure with Explosives, in Casimir Siemienowicz, *Grand art d'artillerie* (Amsterdam, 1650), engraving, each image is 6.5 x 17 cm.

3.10. Georgius Agricola, *De re metallica*, third image from Book 5, 1556.

3.11. *Untitled*, in D. Stolcius von Stolcenberg, *Viridarium chymicum*, 1624, p. 78.

3.12.

Hans Holbein,

Der Leichnam Christi im Grabe

Oil on wood, 30.5 x 200 cm

Kunstmuseum Basel

1521

3.13. *View of the Mouths of Three Caves in the Cliffs that flank the Gorge of the Esbach River by the Castle of Rabenstein in Franconia*, (lithograph, 20.4 x 26), from William Buckland, *Reliquiæ Diluvianæ; or Observations on the organic remains, contained in caves, fissures and diluvial gravel, and on other geological phenomena, attesting the action of an universal deluge*, John Murray: London, 1823, Plate XVIII.

3.14. *Vertical Section of the Cave of Baumans Höhle in the Hartz*, (lithograph, 20.4 x 26), from William Buckland, *Reliquiæ Diluvianæ; or Observations on the organic remains, contained in caves, fissures and diluvial gravel, and on other geological phenomena, attesting the action of an universal deluge*, John Murray: London, 1823, Plate XV.

3.15. *Vertical Section of the Cave of Scharzfeld*, (lithograph, 20.4 x 26), from William Buckland, *Reliquiæ Diluvianæ; or Observations on the organic remains, contained in caves, fissures and diluvial gravel, and on other geological phenomena, attesting the action of an universal deluge*, John Murray: London, 1823, Plate XIV.

3.16. Jacob Xavier Schmuzer, *Fig. 1, Adelsberger Grotte*, (hand-coloured etching, actual size), from Friedrich Justin Bertuch, *Bilderbuch zum Nutzen und Vergnügen der Jugend*, vol. 10, 1807, p. 29.

3.17. Jacob Xavier Schmuzer, *Fig. 2, Adelsberger Grotte*, (hand-coloured etching, actual size), from Friedrich Justin Bertuch, *Bilderbuch zum Nutzen und Vergnügen der Jugend*, vol. 10, 1807, p.29.

3.18. *detail, Fig. 1, Adelsberger Grotte*

3.19. *detail, C. D. Friedrich, Skeletons.*

3.20. J. G. Köppel, *Die sogenannte Wachskammer in der Rosenmüllers höhle*, aquatint, actual size), 1794.

3.21. J. Merigot, *Mine at Falun*, (aquatint, actual size), from L. Boisgelin de Kerdu, *Travels in Denmark and Sweden*, vol. II, 1810, p. 221.

3.22.

Philipp Otto Runge

Ossian

Pen and ink, 39.4 x 24.2 cm

Hamburg, Kunsthalle

1809

3.23.

Studie einer lesenden Frau

Den 6 t October 1801

Pen and Ink, 18.6 x 11.9cm

Dresden Kupferstichkabinett

1801

3.24.

10 Juni 1802, Pfeifenraucher

Graphite, 11.8 x 10.2

Richartz-Museum, Köln

1802

3.25. *Ceremonial Miner's pickaxe*, (wood, gold, silver, standard size), 17th century, German, Private Collection.

3.26. Samuel Klemm, *Die Tscherpertasche de Bergmannngarnitur des Kurfürsten Johann Georg II*, height: 17 cm, Grünes Gewölbe, Dresden, 1677.

3.27

2 May 1814

letter from C.D. Friedrich to Louise Seidler,

Dresden Kupferstichkabinett.

3.28. David Winckler, *Willkomn der Saigerhütte Grünthal*, height: 67cm, Grünes Gewölbe, 1625.

3.29. J. G. Schmidt after Charpentier, title, (engraving, 25 x 19.5 cm), from Johann Friedrich Wilhelm von Charpentier, *Beobachtungen über die Lagerstätte der Erze hauptsächlich aus den Sächsischen Gebirgen. Ein Beytrag zur Geognosie*, Leipzig: bey Georg Joachim Göschen, 1799, Plate 7.

3.30. J. G. Schmidt after Charpentier, title, (engraving, 25 x 19.5 cm), from Johann Friedrich Wilhelm von Charpentier, *Beobachtungen über die Lagerstätte der Erze hauptsächlich aus den Sächsischen Gebirgen. Ein Beytrag zur Geognosie*, Leipzig: bey Georg Joachim Göschen, 1799, Plate 5.

3.31.

View from Studio Window, Left

Graphite and sepia 31.4 x 23.5 cm

Österreichische Galerie im Belvedere, Vienna

1805-6.

3.32.

View from Studio Window, Right

Graphite and sepia 31.2 x 23.7 cm

Österreichische Galerie im Belvedere, Vienna

1805-6.

3.33. Johann Heinrich Meyer, *Die drei Parzen*, pencil and watercolour, 56.8 x 48.6 cm, Kunstsammlungen, Weimar, 1795.

3.34 Johann Heinrich Meyer, *Scenic design for Goethe's Proserpina*, 23 x 35.9 cm, Goethe-Museum, Frankfurt, 1815.

3.35.

Die Frau mit dem Spinnennetz zwischen kahlen Bäumen

Woodcut, 16.8 x 11.8 cm,

Kunsthalle, Hamburg

1801/1804.

3.36.

Woman at the Window

Oil on canvas, 44 x 37 cm

Nationalgalerie, Berlin

1822

3.37. Frederick H. Evans, *A Sea of Steps*, platinum print, 23.6 x 19.1 cm, Museum of Modern Art, New York, 1903.

3.38. *Ort Stoss*, (etching, actual size), from Carl Gustav Adalbert von Weissenbach, *Abbildungen merkwürdiger Gangverhältnisse aus dem sächsischen Erzgebirge*, Leipzig, 1836, Frontispiece.

3.39. Silphium Cyrenean Coin, B.C. 631-530.

3.40. Johann Adolph Darnstedt after Charpentier, (engraving, 25 x 19.5 cm), from Johann Friedrich Wilhelm von Charpentier, *Beobachtungen über die Lagerstätte der Erze hauptsächlich aus den Sächsischen Gebirgen. Ein Beytrag zur Geognosie*, Leipzig: bey Georg Joachim Göschen, 1799, Plate 2.

3.41. Johann Adolph Darnstedt after Charpentier, (engraving, 25 x 19.5 cm), from Johann Friedrich Wilhelm von Charpentier, *Beobachtungen über die Lagerstätte der Erze hauptsächlich aus den Sächsischen Gebirgen. Ein Beytrag zur Geognosie*, Leipzig: bey Georg Joachim Göschen, 1799, Plate 4.

3.42. J. G. Schmidt after Charpentier, (engraving, 25 x 19.5 cm), from Johann Friedrich Wilhelm von Charpentier, *Beobachtungen über die Lagerstätte der Erze hauptsächlich aus den Sächsischen Gebirgen. Ein Beytrag zur Geognosie*, Leipzig: bey Georg Joachim Göschen, 1799, Plate 1.

3.43. Christophe Weigel, 'Ein Ufsträger,' (etching/engraving, actual size), from Christophe Weigel *Bildnisse aller Hütten Beambten und Bedienten*, Vol. I, Nürnberg, 1724, Plate 20.

3.44.

Harzhöhle

Graphite and Sepia, 34.2 x 43.8 cm

Königliche Hand Bibliothek, Copenhagen.

3.45.

26 June 1811, Graphite, Kiel, Stiftung Pommern.

3.46.

27 June 1811, Graphite, Albertina, Wien.

3.47.

Graves of Ancient Heroes

Oil on canvas, 49.3 x 69.8 mm.

Kunsthalle, Hamburg

1812

3.48.

The Grave of Hermann, (Hermanns Grab)

Oil on canvas, 49 x 70 cm

Bremen Kunsthalle

1813

3.49. *Eingang in die Lippoldshöhle*, (etching, actual size), from Johann Christian Rosenmüller and Wilhelm Gottlieb Tilesius, *Beschreibung merkwürdiger Höhlen: Ein Beitrag zur physikalischen Geschichte der Erde*, Vol. 2, Leipzig, 1799-1805, Plate VIII.

3.50. detail, 26 June 1811

3.51. detail, 27 June 1811

3.52. detail, *Graves of Ancient Heroes*

3.53. detail, *Harzhöhle*

3.54. detail, 26 June 1811

3.55. detail, 27 June 1811

3.56. detail, *Graves of Ancient Heroes*

3.57. detail, *Harzhöhle*

3.58. *Adelsberger Grotte*, (etching, actual size), from Johann Christian Rosenmüller and Wilhelm Gottlieb von Tilesius, *Beschreibung merkwürdiger Höhlen: Ein Beitrag zur physikalischen Geschichte der Erde*, Vol. 2, Leipzig, 1799-1805, Plate VI.

3.59. Wilhelm von Kobell, *Mountainous Landscape with Cattle and Ruin*, aquatint, Mannheim, Private Collection, 1791.

3.60. Wilhelm von Kobell, *Rückkehr von der Jagd*, aquatint, Mannheim, Private Collection, 1797.

3.61. Andreas Bissel, *The Monument*, aquatint after Franz Kobell, Mannheim, Private Collection, 1800.

3.62.

Moonrise on an Empty Shore

sepia, 25.2 x 39.5 cm

National Gallery of Art, Washington

1837/1839

3.63. Athanasius Kircher's *Mundus Subterraneus* (1665)

3.64. Johann Christian Rosenmüller, *Plate CXL*, from *Handbuch der Anatomie des menschlichen Körpers*, Leipzig, 1833.

3.65. *Inneres der grossen Höhle von Alcantara ohnweit Lissabon*, (etching, actual size), from Johann Christian Rosenmüller and Wilhelm Gottlieb von Tilesius, *Beschreibung merkwürdiger Höhlen: Ein Beitrag zur physikalischen Geschichte der Erde*, Vol. 1, Leipzig, 1799-1805, Plate V.

3.66. *Liebensteiner Höhle*, (etching, 26.1 x 20.2 cm), from Johann Christian Rosenmüller and Wilhelm Gottlieb von Tilesius, *Beschreibung merkwürdiger Höhlen: Ein Beitrag zur physikalischen Geschichte der Erde*, Vol. 2, Leipzig, 1799-1805, Plate V.

3.67. *Eingang in die Grotte von Antiparos*, (etching, actual size), from Johann Christian Rosenmüller and Wilhelm Gottlieb von Tilesius, *Beschreibung merkwürdiger Höhlen: Ein Beitrag zur physikalischen Geschichte der Erde*, Vol. 2, Leipzig, 1799-1805, Plate III.

3.68. J. B. Tilliard, *Entrance to the Grotto of Antiparos*, (engraving) from M. G. A. Choiseul-Gouffier, *Voyages pittoresques de la Grèce*, vol. I, 1782, plate 36.

3.69. detail, *View from the Artist's Studio, Right Window* (1805-06).

3.70.

Self-Portrait

Black chalk, 23 x 18.2 cm

Berlin Kupferstichkabinett

1810

Chapter Four

4.1. *Riesengebirgslandschaft mit Schneekoppe und Wanderer*, 14.2 x 20.6 cm, Dresden Kupferstichkabinett, 1810.

4.2. Wilhelm von Kobell, *Postilion with Travelling Coach in the Fog*, watercolour 37.1 x 50 cm. Winterstein collection, 1798.

4.3. *den 13 t Juli 1810*, 26 x 35.8 cm, Mannheim, Kunsthalle, (Hinz 547).

4.4. *d 12 t Juli 1810*, 36 x 26 cm, Hamburg Kunsthalle, (Hinz 546).

4.5. *den 14 t Juli 1810*, 33.2 x 25.6 cm, Dresden Kupferstichkabinett, (Hinz 549).

4.6. *den 17 t Juli 1810 bei Kochelfall*, 25.1 x 35 cm, Dresden Kupferstichkabinett, (Hinz 554).

4.7. *den 10 t Juli 1810*, 26.2 x 36.3 cm, Museum Folkwang, Essen, (Hinz 543).

4.8. *The Source of the Elbe in the Riesengebirge*, watercolour, 25 x 34.4 cm, Winterstein Collection, 1830.

4.9. *In Memory of the Riesengebirge*, Oil on canvas, 72 x 102 cm, Hermitage, Moscow, 1835.

4.10. Abbé Gruber, *Aussicht am Tusse der Schnee Kuppe in dern Riesengrunde und das Sups Thal nach Böhmen* (etching, 21.5 x 16 cm), from Gerstner, F., Gruber, A., Haenke, T., Jirasek, J., *Beobachtungen auf Reisen nach Riesengebirge*, Dresden, 1791, p. 3.

4.11. *Fig. zur 4en Abtheilung* (etching, 16 x 21.5 cm), from Gerstner, F., Gruber, A., Haenke, T., Jirasek, J., *Beobachtungen auf Reisen nach Riesengebirge*, Dresden, 1792.

4.12. *Titlepage*, (engraving, 24.2 x 18 cm), from Johann Friedrich Wilhelm von Charpentier, *Mineralogische Geographie der chursächsischen Lande*, Leipzig: Siegfried Labrecht Crucius, 1778.

4.13. Christophe Weigel, 'Ein Unter Steiger,' (etching/engraving, actual size), from Christophe Weigel, *Bildnisse aller Hütten Beambten und Bedienten*, Vol. I, Nürnberg, 1724, Plate 15.

4.14 Carl Gustav Carus, *Blick vom Milleschauer nach Western*, Graphite, 20.4 x 25.5 cm, Dresden Kupferstichkabinett, 1827.

4.15. Carl Gustav Carus, *Blick vom Milleschauer nach Osten*, Graphite, 20.4 x 25.5 cm, Dresden Kupferstichkabinett, 1827.

4.16. Part 1, *St. Andreasberg*, (etching, 26.8 x 41 cm), from Henning Calvoer, *Acta Historico-Chronologico-Mechanica circa metallurgiam in Hercynia superiori. Oder historisch-chronologische Nachricht und theoretische und practische Beschreibung des Maschinenwesens, und der Huelfsmittel bey dem Bergbau auf dem Oberharze, darin insbesondere gehandelt wird von denen Maschinen und Huelfsmitteln, wodurch der Bergbau befoerdert wird, als von dem Markscheiden, Schacht- und Grubenbau, von Bohren und Schiessen*, Braunschweig, Verlag der Fuerstl. Waysenhaus-Buchhandlung, vol. 2, 1763, Plate XII. (Note: entire etching shown in three parts).

4.17. Part 2, *St. Andreasberg*, (etching, 26.8 x 41 cm), from Henning Calvoer, *Acta Historico-Chronologico-Mechanica circa metallurgiam in Hercynia superiori. Oder historisch-chronologische Nachricht und theoretische und practische Beschreibung des Maschinenwesens, und der Huelfsmittel bey dem Bergbau auf dem Oberharze, darin insbesondere gehandelt wird von denen Maschinen und Huelfsmitteln, wodurch der Bergbau befoerdert wird, als von dem Markscheiden, Schacht- und Grubenbau, von Bohren und Schiessen*, Braunschweig, Verlag der Fuerstl. Waysenhaus-Buchhandlung, vol. 2, 1763, Plate XII. (Note: entire etching shown in three parts).

4.18. Part 3, *St. Andreasberg*, (etching, 26.8 x 41 cm), from Henning Calvoer, *Acta Historico-Chronologico-Mechanica circa metallurgiam in Hercynia superiori. Oder historisch-chronologische Nachricht und theoretische und practische Beschreibung des Maschinenwesens, und der Huelfsmittel bey dem Bergbau auf dem Oberharze, darin insbesondere gehandelt wird von denen Maschinen und Huelfsmitteln, wodurch der Bergbau befoerdert wird, als von dem Markscheiden, Schacht- und Grubenbau, von Bohren und Schiessen*, Braunschweig, Verlag der Fuerstl. Waysenhaus-Buchhandlung, vol. 2, 1763, Plate XII. (Note: entire etching shown in three parts).

4.19. *Croquis vom Riesengebirge* (etching, 26.5 x 17.1 cm), from F. C. von Watterrich, *Album für Kunst- und wissenschaftliche Wanderungen im Riesengebirge: Ein Taschenbuch der wissbegierigern reifern Jugend*, Prag, 1839.

4.20. Part 1, Friedrich August Tittel, 'Panorama of the Riesengebirge,' (etching, 16.5 x 40.1 cm), in *Haupt- oder Profil-Ansicht der ganzen Kette des Riesengebirges in Schlesien*, 1815. (Note: entire etching shown in two parts).

- 4.21. Part 2, Friedrich August Tittel, 'Panorama of the Riesengebirge,' (etching, 16.5 x 40.1 cm), in *Haupt- oder Profil-Ansicht der ganzen Kette des Riesengebirges in Schlesien*, 1815. (Note: entire etching shown in two parts).
- 4.22. *Detail A*, Friedrich August Tittel, 'Panorama of the Riesengebirge,' (etching), in *Haupt- oder Profil-Ansicht der ganzen Kette des Riesengebirges in Schlesien*, 1815. (Note: entire etching shown in two parts).
- 4.22. *Detail B*, Friedrich August Tittel, 'Panorama of the Riesengebirge,' (etching), *Haupt- oder Profil-Ansicht der ganzen Kette des Riesengebirges in Schlesien*, 1815. (Note: entire etching shown in two parts).
- 4.23. *Landschaft im Riesengebirge*, watercolour and pencil, 24.5 x 33.5 cm, Oskar Reinhart Collection, Winterthur, 1828.
- 4.24. *Profil durch den Harz*, (etching, 10.5 x 28 cm), from *Archiv für Mineralogie, Geognosie, Bergbau und Hüttenkunde*, ed. C. J. B. Karsten, Berlin, 1829, Plate V.
- 4.25 Christian Gottfried Assmann, *Untitled*, (hand-coloured etching, 19.8 x 11.7 cm), from Christian Gottfried Assmann, *Reise im Riesengebirge: Ein geologische Versuch*, Leipzig, 1798, Pl. A.
- 4.26. Christian Gottfried Assmann, *Untitled* (hand-coloured etching, 19.8 x 11.7 cm), from Christian Gottfried Assmann, *Reise im Riesengebirge: Ein geologische Versuch*, Leipzig, 1798, Pl. B, Tab. II.
- 4.27. *Zeiget die östliche Seite des Topas zeigt die südliche Seite desselben* (engraving, 18.5 x 24.8 cm), from Johann Friedrich Wilhelm von Charpentier, *Mineralogische Geographie der chursächsischen Lande*, Leipzig: Siegfried Labrecht Crucius, 1778, Plate 4.
- 4.28. *Zeiget die südliche Seite desselben, an welcher besonders die Spaltung*, (engraving, 18.5 x 24.8 cm), from Johann Friedrich Wilhelm von Charpentier, *Mineralogische Geographie der chursächsischen Lande*, Leipzig: Siegfried Labrecht Crucius, 1778, Plate 5.
- 4.29. *Die Seite des Felsens gegen Wester*, (engraving, 18.5 x 24.8 cm), from Johann Friedrich Wilhelm von Charpentier, *Mineralogische Geographie der chursächsischen Lande*, Leipzig: Siegfried Labrecht Crucius, 1778, Plate 6.
- 4.30. *Die Seite des Felsens gegen Norden* (engraving, 18.5 x 24.8 cm), from Johann Friedrich Wilhelm von Charpentier, *Mineralogische Geographie der chursächsischen Lande*, Leipzig: Siegfried Labrecht Crucius, 1778, Plate 7.

4.31. Carl Gustav Carus, *Steinbruch von Weinböhla*, (etching, 16 x 19.2 cm), from *Archiv für Mineralogie, Geognosie, Bergbau und Hüttenkunde*, ed. C. J. B. Karsten, Berlin, 1829, Plate VI.

4.32. Halbig, *Winteransicht der Brocken-Gebäude*, (lithograph, actual size), from C. E. Nehse, *Der Brocken und seine Merkwürdigkeiten*, (Wernigerode, 1840), *Frontispiece*.

4.33.

Wanderer above the Sea of Fog

Oil on canvas, 94 x 74.8 cm

Kunsthalle, Hamburg

1818

4.34.

Woman Before the Setting Sun

Oil on canvas, 22 x 30 cm

Museum Folkwang, Essen

1818

4.35. *Masthead*, from *Isis oder Encyclopädische Zeitung*, I, no. 1, 1816, p. 1.

4.36. *Masthead*, from *Isis oder Encyclopädische Zeitung*, I, no. 8, 1817, p. 1.

4.37. *Butucudo*, from *Isis oder Encyclopädische Zeitung*, I, no. 7, 1817.

4.38. *Butucudo*, from *Isis oder Encyclopädische Zeitung*, I, no. 9, 1817, p. 1.

4.39. *Wanderer above the Sea of Fog*, schematic.

4.40. Heinrich Keller, 'Der Nebelbild,' in *Beschreibung des Rigiberg*, (Zürich: Füessli & Comp., Kunsthandlern zur Meissen, 1814).

4.41. Heinrich Keller, *Section of the Panorama* in *Beschreibung des Rigiberg*, hand-coloured etching, actual size, (Zürich: Füessli & Comp., Kunsthandlern zur Meissen, 1814).

4.42. *Way of Salvation*, hand-coloured woodcut, 26.2 x 18.1 cm, National Gallery of Art, Washington, DC, c. 1490.

4.43. *Kiesers System der Tellurismus*, (etching, actual size), from Dietrich Georg Kieser, *System des Tellurismus oder Thierischen Magnetismus*, Leipzig, 1822, plate opposite p. 118

4.44.

Monk at Sea

Oil on canvas, 110 x 172 cm

Nationalgalerie, Berlin, 1809

I. INTRODUCTION

The purpose of this thesis is to re-describe certain key works within the oeuvre of Caspar David Friedrich (1774-1840) as belonging to the culture of *Bergwesen*, and in so doing, provide evidence to support the claim that these works contribute to the symbolic, allegorical and technological culture of the subterranean world in Germany.¹ Two paintings from 1827 are the focus of this reassessment; *The Hut in the Snow* (*Eine Hütte*, fig. 1.1) and *A Vault* (*Ein Gewölbe*, fig. 1.2). Caspar David Friedrich exhibited *The Hut in the Snow* and *A Vault* as pendants at the 1827 Dresden Royal Academy of the Arts exhibition.² Both of these paintings depict an entry into another space; in fact, the arrangement of their respective doors suggests that the space to which each provides access is a conceptually shared space – the *Hut*'s door opens out to the left of its frame, the *Vault*'s to the right (fig. 1.3 and 1.4). It is my conviction that if we discover the identity of this shared space; we will not be able to look at the paintings of Caspar David Friedrich in the same way again. In order to begin our journey to name this space, we must first recover the true identity of the *Hut* in the snow.

What is the bond that Friedrich meant to develop between *The Hut in the Snow* and its pendant, *The Vault*? The *Hut* and the *Vault* have a comparable

¹ *Bergwesen* translates roughly to mining matters.

² Helmut Börsch-Supan and Jahnig, *Caspar David Friedrich: Gemälde, Druckgraphik und bildmäßige Zeichnungen*, (Prestel-Verlag: München, 1972), p. 111.

structural arrangement of covered entry composed either of a post/lintel system within a conical shape or round arch sheltered within a pointed cloister. Both orifices are centralized in their arrangement on the surface plane of the compositions suggesting that, for Friedrich, the openings are privileged over the matter that structures their core. Still these spaces are contingent on their constructions; signs of the necessity of cultural agency in the formation of reckoned channels of passage. Does the Romantic science of comparative morphology in which inner form is reflected in outer appearance have any bearing on the comparative arrangement of the two pendants; after all, the methodological practise of comparative analysis dominated intellectual discourse in early nineteenth-century Germany. It is my opinion that it does not in a direct sense; certainly there are no living beings in either painting, save for pollard willows, a fir tree, and dormant grasses. No animals, human or otherwise, are present other than in the evidence of human activity disclosed through the rudimentary ensembles of lumber and masonry. Given this, might we still use the methodology of Romantic morphological science to help guide us in the examination of the two inanimate objects? Yes, however, in order to do this, we must know what lies inside the shelter of the darkened *Hut* and order to know that, we have to know what it is.

In the centre of *The Hut in the Snow*, there is a triangular arrangement of timber plunging downwards (fig. 1.5). This simple compositional device is comprised of the representation of a door ajar on the left of the framed entrance and an errant picket to the right which seem to intersect at their lowest visible points. This effect is contradicted by the branches of last season's willow growth scrambling upwards, their rise silhouetted against the murky winter's sky. Given

these details, one could assign an allegorical meaning to the painting; it is the tomb of Christ? The directional opposition expressed by the ascent of living wood and descent of the cut lumber is keyed on the threshold of aperture. The roof of the entry is made heavy by earth and snow; its laden eaves counter the upward thrust of the pyramidal shelter. In the immediate foreground of *The Hut in the Snow*, an eccentrically shaped dead tree or rather, a disembodied trunk whose branches developed in a downward spiral, perform as a bathetic *fingerzeig*.³ The overall trend of the composition is one of descent, not of ascension. If it is Christ's tomb, it has long since been abandoned; it is uncared-for, neglected.

The dimensurate position in depth of one vertical feature of the wooden construction within *The Hut in the Snow* reads as ambiguous. To the right of the opening and traversing the rear-facing plane of the tilting picket at its mid-point is a substantial vertical post whose truncated upper segment is painted so as to appear as extending *behind* the horizontal member of the entry's lintel, whereas, at its lowest visible point, it appears to project far *forward*, parallel to the entry's perpendicular plane. By looking at this post, the viewer is forced to question the perspicuity of the representation. The believability of the intricately composed network of branches and timber structure falters. Yet, if the viewer visually grasps onto the heavy vertical post as if it were a ship mast on a storm-tossed boat, the rest of the elements in the composition come to rest, overwhelmingly earthbound like the great lumpish mass of the hut. The base of the conical structure hugs the earth; in effect, the *Hut* seems to be submerged in the loam,

³ The *fingerzeig* is a pointing device used by German landscape artists to set the viewer on a visual path within a composition that is intended by the artist.

anchored to the vertical post of indefinite location. The space inside such a squat structure would be extremely cramped; one doubts that a full-grown adult could perform any task other than turning around within its restricted space. What if its dimensions are not limited to the measured area across and above the surface of its floor? What if it doesn't even have a floor? What if it isn't a hut?

Before we know what it means, we have to know what it is. Where can we look to discover the function of the structure – in a mountain valley where Friedrich has apparently situated the hut, in books on architecture such as Abbé Marc-Antoine Laugier's *Essai sur l'architecture* (1753) or Friedrich Schlegel's *Grundzüge der Gotischen Baukunst* (1806)? Whilst researching Friedrich's work in the Harz Mountains of Germany, I saw a replica of the hut in a provincial museum; however, it was not a dwelling, rather the protective housing for an artisanal mine shaft.⁴ Further to this discovery, I found that this pre-industrial artefact, the conically-shaped framework, served as a prototype for the design of structures used for similar purpose in large-scale mining productions.

Knowing what the hut is – a mine entrance – opens up an enormous, crucial dimension previously not considered in the Friedrich scholarship: the subterranean. This deep dimension speaks out from the dark recess within *The Hut in the Snow*. Knowing what the painting is *of* engages in the polemic of indeterminacy of meaning in Friedrich's work in a way that hasn't been done before. In this thesis, I have sought to encumber the work of Friedrich with the ballast of demotic and technological cultures as well as the requisite intellectual

⁴ The provincial museum is the *Rammelsberger Bergbaumuseum* 1 kilometre south of Goslar in the Harz Mountains of central Germany and the 'hut' appeared again, in the collection of the town's *Goslarer Museum*.

atmosphere of the *Naturphilosophen*. In the process of counter-weighting the influence of philosophical systems with his probable knowledge of practical matters, I have found that the inherent indeterminacy in the meaning of Friedrich's work is lessened by useful information about precisely what the object in the painting is; not what it appears to us to be, but what it appeared to Friedrich's contemporaries to be. The singular function of the object and what Friedrich needed to know about its applications also contributes to its meaning. Hegel's theory of appearance is useful in understanding how one resolves the issues of identity, purpose, and meaning:

It is one of the commonest determinations of ordinary thinking that a *thing* consists of a number of independent matters. On the one hand, the thing is considered to have *properties*, whose *subsistence* is the *thing*. But, on the other hand, these different determinations are regarded as matters whose subsistence is not the thing, but, conversely, the *thing consists* of them and is itself only their external combination and quantitative limit.⁵

By pairing the *Hut* with the *Vault*, Friedrich rehearses an ideal through counter-determination. So then what is the *Vault*, other than an ecclesiastic architectural feature? By extension, if Friedrich identifies with part of the culture of *Bergwesen* through his representation of a mine entrance in *The Hut in the Snow*,

⁵ Georg Wilhelm Friedrich Hegel, 'Section Two: Appearance,' in *Hegel's Science of Logic*, 1812-1816, trans. A.V. Miller, (London: Allen & Unwin, 1969), §1076. Hegel continues the statement, 'Both properties and matters are the same *content-determinations*; only in the former case they are moments, that is, they are reflected into their negative unity as into a substrate distinct from them, namely, *thinghood*, and in the latter case they are self-subsistent, different determinations, each of which is reflected into its own unity-with-self.'

then, in what other images might we find evidence of this distinct visual vernacular of picturing interiority? Guided by his image of a mine, it is my intention to identify other examples in his oeuvre of this meta-allegorical commentary on place.

To understand this domain means understanding the culture of mining and the concomitant sciences of geology and speleology. This required that I read widely in the emergent practises of the natural sciences as well as natural philosophy. Because I propose the widespread interconnectedness within the fine and popular arts, aesthetic and material production informs the conceptualization of Friedrich's imagery; much of this enquiry is dependent upon research in primary sources other than art reviews and philosophical tracts. Historians of science and technology have referenced some of the volumes dedicated to areas of geography, metallurgy, speleology, mining technology, and chemistry that I will introduce here; yet, rarely are the images printed within these volumes reproduced or even mentioned within the secondary literature and certainly none have been referenced in art historical studies. An important contributor to understanding the mechanistic forces that existed below the surface was the detailed, panoramic map that charted political and geological boundaries in the earth as well as on its surface. Despite the ubiquity of the mapped document as a trope of contemporary practice amongst artists engaged with issues of identity and 'new-world' order, surprisingly little attention has been paid to the viscosity of such geographical images in the development of modernity. In the quest for the identity of the space within the *Hut* and the *Vault*, I wish to explore how the visual culture found within these types of volumes

concerned with the appearance and resources of the mountains in Germany influenced Friedrich's working *and* thinking processes.

There are many periodicals and published texts that contributed to the dissemination of this type of knowledge so I have limited myself to the consideration of key texts, widely read immediately following their publication, and during the period of 1780 to 1830 that engage in the natural sciences as they interface with geography, technology and philosophy. These specialist surveys and scientific journals were read by individuals other than those in the profession as I will make clear.⁶ The texts include studies of ore-courses by Henning Calvör, Johann Friedrich Wilhelm von Charpentier, Christoph Traugott Delius, and Antoine-Marie Héron de Villefosse; cave studies by Georges Cuvier, Jean-André de Luc, and Johann Christian Rosenmüller; periodic journals dedicated to the mining and geological sciences whose scope, however, was wide ranging, such as those edited by Lorenz Oken, Johann Friedrich Lempe, and C. J. B. Karstens; and, individual works by notable *Naturphilosophen*, Lorenz Oken and Henrik Steffens, particularly Oken's *Lehrbuch der Naturphilosophie* (1809) and Steffens' *Caricaturen des Heilgsten* (1819). Many of the names just mentioned are certainly unfamiliar to the reader; however, I will introduce these protagonists within the context of relevant discussion of their work over the course of the thesis. These texts also lead to works of literature that helped to shape Friedrich's vision of the underworld such as Greek mythology as considered by Friedrich Creuzer's *Symbolik und Mythologie* (1810), the stories

⁶ Each printed copy of a periodical was read on average by at least twenty people. See Anne Marie Link, *Papierkultur: the new public, the print market and the art press in late eighteenth century Germany*, PhD thesis, Birkbeck College, University of London, 1993, p. 29.

of E.T.A. Hoffmann, Heinrich von Kleist, Novalis, and Amalie von Helwig; and, *Ossian*, and the *Edda* myths as introduced to the Germans by the Dane, Adam Gottlob Oehlenschläger.

The literature on Friedrich is vast. Helmut Börsch-Supan's *catalogue raisonné* based in part on his 1960 dissertation at Berlin, Freie Universität and the archive of Karl Wilhelm Jähnig, provides a comprehensive bibliography and a selective reprinting of many passages written about Friedrich during and since his lifetime. These documents chart the rise and fall of the artist's popularity. Börsch-Supan's careful study of Friedrich's compositional development over the span of his career provides a nearly uncontested system for the dating of Friedrich's work. In his important early work, Werner Sumowski charts the relationship of Friedrich with the intellectual mood during his early career; and, he suggests some intriguing connections to Friedrich's work.⁷ Irma Emmrich studied the artist's life work and his circle of friends.⁸ Her book makes an unconvincing case for an ideological stance in some of the mid-career works; however, she does re-date some significant works based on her painstaking archival research. Gerhard Eimer states that the appearance of Gothic architecture in the artist's work is representative of Friedrich's acknowledgment of historical past.⁹ Eimer finds ample evidence of political allegory in his

⁷ Werner Sumowski, *Caspar David Friedrich: Studien*, (Wiesbaden, 1970).

⁸ Irma Emmrich, *Caspar David Friedrich*, (Weimar: Hermann Böhlaus Nachfolger, 1964).

⁹ K. K. Eberlein, *Caspar David Friedrich der Landschaftsmaler*, (Bielefeld und Leipzig: 1940). K. K. Eberlein (ed.), *Caspar David Friedrich. Bekenntnisse*, (Leipzig: 1925). Gerhard Eimer, *Caspar David Friedrich und die Gotik*, (Hamburg: Verlag Christoph von der Ropp, 1965).

paintings, although this aspect of Friedrich had been noted previously.¹⁰ In more recent years, Joseph Leo Koerner contributed the important *Caspar David Friedrich and the Subject of Landscape*, which influenced much of my thinking on Romantic subjectivity and how I should initiate my visual examination of each work by Friedrich, Werner Hofmann – *Caspar David Friedrich*, and Werner Busch – *Caspar David Friedrich: Ästhetik und Religion*. William Vaughan wrote the meticulously researched *German Romantic Painting* that made available a much-needed survey of the period, rich with insight and valuable information and recently published his superbly written study of *Caspar David Friedrich*.

There have been useful studies that connect Friedrich's work to specific landscapes, including; Karl-Ludwig Hoch's *Caspar David Friedrich und die böhmischen Berge* (1987), Herrmann Zschoche's *Caspar David Friedrich auf Rügen* (1998) and his *Caspar David Friedrich im Harz*. Tina Grutter's *Melancholie Und Abgrund: Die Bedeutung Des Gesteins Bei Caspar David Friedrich* is a fascinating analysis of certain works in light of their association with early Romantic poetry and the artist's legendary melancholic temperament, however, she did not venture to make an argument that the rock and gravesite motifs within his compositions were connected somehow to the world below the surface.¹¹ Charlotte Klonk's *Science and the Perception of Nature: British Landscape Art in the Late Eighteenth and Early Nineteenth Centuries* introduces the idea of phenomenism as a particular quality of modern observation that

¹⁰ Gustav Hartlaub in *Zeitschrift für bildende Kunst*, 1916, p. 201 ff.

¹¹ Tina Grütter, *Melancholie Und Abgrund: Die Bedeutung Des Gesteins Bei Caspar David Friedrich Ein Beitrag Zum Symboldenken Der Fruhromantik*, (Berlin: Dietrich Reimer Verlag, 1986).

informed artistic practise and this book has been an important secondary source for my understanding of the relationship between artists and scientists, particularly, as there exists contradictory encounters with Nature between phenomenalist subjectivity and the mechanistic forces that gave certain landscapes their appearance. How this conflict between appearance and causal effect was mediated within illustrations of subterranea is also of interest. Michel Chaouli's *The Laboratory of Poetry: Chemistry and Poetics in the Work of Friedrich Schlegel* (2002), an examination of the junction of Romantic science with poetry, provided an excellent investigative model for my enquiry.

My analyses of specific works of art will be both descriptive and constructive as I look for structural similarities between Friedrich's pictures and those images produced for the journals and texts mentioned above. However, whilst I situate my project within a tradition defined by the appearance of these works, I expand their projects to argue for a far greater agency of the printed image in the formation of the chthonic aspect in German Romantic thought. Hans Blumenberg's *Höhlenausgänge* informed much of my thought on more theoretical matters pertaining to the chthonic world. Hans Georg Gadamer's *Truth and Method* is a significant influence on my method of examination – specifically, following on the question that if the pre-industrial head-frame as modelled by the 'hut' was a prototype for its assorted industrial descendants, can Friedrich's image serve as a meta-allegory to assist us in identifying other models of the chthonic world previously undetected in his work that both precede and follow its completion?¹² Does this examination ultimately lead us to a new

¹² 'Even within the human sciences it is *art* that brings the basic questions of human being to our awareness in such a unique way – indeed, in such a way that no resistance

vision of German Romanticism? What distinguishes my work from previous scholarship is the formation of questions around the legibility of Friedrich's embedded objects and structures in light of *Bergwesen*, rather than their interpretability as projections of idealist philosophy. This enquiry will bring a new aspect to our appreciation of his empiricist visual productions and reveal the influences which shape his sometimes eccentric choice of subject matter.

This is not to say that every, single one of Caspar David Friedrich's paintings are the result of his interface with mining culture. Many of his works will maintain their emblematic status as distinct expressions of Pietism, political activism, or as odes to Nature's beauty and his Pomeranian origin. But others, done and dusted in the scholarship are more problematical in light of this bathetic finding. The figures contemplating the moon, standing at brinks and thresholds, sepias of gravesites are amongst many which need to be examined in this light or, perhaps more appropriately, darkness.

The chapters of the thesis are ordered as follows: in chapter two, I confirm the identity of the hut as the entrance to a mine through an examination of mining's visual culture and documents which detail human construction of the structures within underground spaces; the beams of wood that shape the tunnels; the vapours that flow through the passageways; the lamps that light the darkness; the tools and ladders used by men to access these spaces, and, of course, the ore itself sought by humans in these places. I conclude the chapter by proposing

or objection against it arises. An artwork is like a model (*ein Vorbild*) ... By this I mean that an artwork is, so to speak, irrefutable (*uneiderleglich*).’ Hans-Georg Gadamer, ‘From Word to Concept: The Task of Hermeneutics as Philosophy,’ trans. Richard E. Palmer, in *Gadamer's Repercussions: Reconsidering Philosophical Hermeneutics*, ed. Bruce Krajewski, (Los Angeles/London: Univ. of Calif. Press, 2004), p.6.

that, taken together, the 1827 pendant paintings represent a vanishing realm. The next chapter looks at the other category of subterranea, the cave. I will shift the focus from *The Hut in the Snow* to *The Vault* and to other works by Friedrich that explicitly or implicitly denote a cavernous setting. I suggest that these might be viewed as a response to the enthrallment of writers, scientists, tourists, and medical doctors with caves. The final chapter situates a painting, that is the result of a series of topographic drawings, and two other paintings in a broader context of popular culture and science that reflect Friedrich's fascination with the vertical axis on which the worlds of above and below reside.

Aside from a few poems written at a time when many Germans of varying talent attempted to pen short verse, Caspar David Friedrich wrote very little besides letters to family, friends, and patrons. His later musings in the aphoristic, *Äusserung bei Betrachtung einer Sammlung von Gemälden von grösstenteils noch lebenden und unlängst verstorbenen Künstlern* (1830), reveal the degree to which he felt isolated artistically in his later years. However, it is an earlier writing that is relevant to our enquiry into subterranea in relationship to Friedrich. Based on a tale from the Jasmund region on the island of Rügen, Friedrich's *Der goldene Kelch von Bubbin* relates a journey taken by a condemned prisoner down into a smouldering abyss that had never before been entered because of the hideous cries emanating from within it.¹³ Upon his arrival at a fiery chamber deep within the earth, a woman in the grip of a terrible monster gave the man an opportunity to choose between an unformed iron

¹³ Kurt Karl Eberlein, *Bekenntniss*, (Leipzig, 1924), pp. 67-71 and Gerhard Eimer, *Zur Dialektik Des Glaubens Bei Caspar David Friedrich*, (Weimar: Kunstgeschichtliches Institut der JohannWolfgang Goethe-Universität, 1982), p. 49ff3.

object, a silver idol, or a golden chalice. He chose the chalice whereupon he found himself once again upon the surface only to expire after sharing his story with onlookers. The fantastic tale, the only one known to be penned by the artist, not only reflects Friedrich's fascination with Nordic folktales but particularly those concerned with *Utgard*, the subterranean world of the *Edda* where metals and magic co-exist in geological time.

Humans can only physically 'dwell' on the horizontal axis of the world; however, our thoughts are not bound by gravity. On a 4-thaler coin minted for the Duke of Braunschweig-Lüneberg in 1662, the White Horse of Westphalia hovers over a mining scene in the Harz Mountains of central Germany (fig. 1.6). Below the White Horse, the ground is described as a gently sloping landscape; however, the depths are also visible. There is more than one entrance to the mining works below. We can see miners at work, chipping away at the subterranean walls, and we see their ladders and the buckets which carry the results of their digging to the surface. On the surface, a network of wooden rails joins the triangular head-frames which stand guard over the mine shafts. This coin is but just one small token of the visual culture of *Bergwesen*. Returning once again to *The Hut in the Snow*, we notice the remnant of a short post is poking up through the grasses immediately in front of the entryway. Could it be that a wooden rail or a pulley-winch once stood in this place?

‘He knows too that as long as he tries by cunning to distinguish things that are things from things that are signs he will not be saved.’

J.M. Coetzee, *Master of Petersburg* ¹

II. MINES, FORGES, AND TUNNELS

If *The Hut in the Snow* is not a dwelling, what evidence might we examine to discover its true identity? In this chapter, I will situate the painting in a cultural context that has yet to be explored in the scholarship. It will be necessary to look at other objects, fragments of architecture and remnants of places that only exist in the anachronistic settings of provincial museums or as images in seldom studied primary sources of a technical or scientific nature. Rather than engaging in an argument as to what constitutes the aesthetic value of the hut and these analogous objects, I take a position similar to that of the anthropologist Alfred Gell who suggests that their significance lies in their intrinsic interpretability and lack of arbitrariness.² The images I have found in these rarely examined technological volumes were ‘practically embedded artworks’ that served an important role in the visual culture of the Romantic Age although they might not have qualified as meaningful art in Hegelian terms.³ And what of constructions that resemble the ephemeral ‘hut’ that no longer exist except as ruins? Where will we find these structures that have not survived as functional edifices? They

¹ J.M. Coetzee, *The Master of Petersburg*, London, 1994, p.83.

² Alfred Gell, ‘Vogel’s Nets: Traps as Artworks and Artworks as Traps,’ *Journal of Material Culture*, vol. 1, no. 15, 1996, pp. 15-38.

³ Gell, p. 36.

may be found in an archaeology of human intervention in the domain of the mountain – a location usually reserved in scholarship for theoretical enquiries into notions of spectatorship, human and nature interface, and interpretative subjectivities; not as a site for the excavation of legible matter of a technological nature.

This chapter is introduced by a short narrative that seeks to establish Friedrich's intention that the two paintings, *The Hut in the Snow* and *A Vault* should be viewed as pendants. Following this, I will contest the assumption that *The Hut in the Snow* is a dwelling in the first instance by briefly enquiring as to the notion of dwelling in light of Romantic architectural and theories of space. Secondly, and most important, I will provide visual evidence as to its identity as an artefact belonging to a technological rather than agrarian cultural milieu. Then, having established the nature of its thinghood, I will examine other artworks by Friedrich that, in light of this finding, might be better understood as part of the visual culture of *Bergwesen*.

1. The Fact of a Comparative and Contrasting Position

There is a somewhat imprecise system with varying degrees of consensus amongst Friedrich researchers that qualifies a pair of paintings to be counterparts. Some works that scholars have identified as pendant paintings by Friedrich share the same exhibition catalogue number; for example, *Monk by the Sea* (1809) and *Abbey in the Oak Forest* (1809) shown in Berlin in 1810 as *Zwei Landschaften in Oel*, no. 339 and, *Graves of Ancient Heroes* (1812) and *The Grave of Hermann*

(1813) were listed as *Zwei Landschaften*, no. 328 at Dresden in 1814.⁴ Other pairs, posited as pendants in the literature have had different register numbers assigned; such as, *Early Snow* (1828) and *Fir Forest with Waterfall* (1828) listed as numbers 619 and 620 respectively at their Dresden showing.⁵ It should be noted that there are conflicting opinions as to what painting is the companion piece to *Early Snow*, if indeed one exists. Wilhelm Wegener in his *Der Landschaftmaler Friedrich* (1859) proposes that *Easter Morning*, now in the collection of Museo Thyssen-Bornemisza in Madrid, is the counterpart of *Early Snow* and Sumowski concurs, based on Wegener's estimation.⁶ Börsch-Supan reports Wegener, who at one time had both of these paintings in his possession, came to this conclusion solely on the basis that the Berlin publisher Georg Andreas Reimer declared them to be pendants. I tend to agree with Börsch-Supan that the counterpart to *Early Snow* is, in fact, *Fir Forest with Waterfall* – although the pitch and direction of the paths is similar, the climb of the ascending ground into the summer forest contrasts dramatically with the falling water exiting the wintry forest – this seasonal variation on the theme of pathways meets, at least partially, the criteria of 'striking contrast' noted by William Vaughan in his study on Friedrich.⁷

⁴ Helmut Börsch-Supan and Karl Wilhelm Jähnig, *Caspar David Friedrich*, 1972, pp. 304 and 326-27.

⁵ Börsch-Supan/Jähnig, pp. 412-414.

Early Snow Kunsthalle Hamburg, *Fir Forest with Waterfall*, private collection, Munich.

⁶ Wilhelm Wegener, *Der Landschaftmaler Friedrich* (1859, p. 76) and Sumowski, 1970, p. 218.

⁷ *Early Snow*, Kunsthalle Hamburg, *Fir Forest with Waterfall*, private collection, Munich.

Two other works identified as pendants by Börsch-Supan, *View of Level Landscape on Rügen* and *View on Rügen with Windmills*, were shown together at the Dresden Academy in 1823 and the contrast between these two works is subtle in respect to their seasonal setting but seem to diverge in other ways. These two works also had separate exhibition registry numbers, 609 and 607.⁸ Although we have no knowledge of their numerical registry identifiers, *Bushes in the Snow* (1828) and *Fir Trees in the Snow* (1828) were shown together as pendants in the Leipzig Kunstakademie according to notes discovered in the archive of Karl Wilhelm Jähnig and Börsch-Supan concurs with this.⁹ Their view may be supported by the reference in an 1828 issue of the *Kunstblatt* to ‘zwey kleine Bildchen’ which depict respectively, a stand of shrubbery and a pyramidal group of young fir trees, both set in a winter’s landscape.¹⁰ Still other presumed pendants were not shown together in any exhibition of record during Friedrich’s lifetime, such as *Wintry Landscape with Oak and Hunter* (1811) and *Winter Landscape with Church* (1811) and, *The Solitary Tree* (1822) and *Moonrise over*

⁸ Börsch-Supan/Jähnig, p. 381.

⁹ Börsch-Supan/Jähnig, p. 411 and *Caspar David Friedrich: 1774-1840*, William Vaughan, Helmut Börsch-Supan, Hans Joachim Neidhardt, (London: Tate Gallery, 1972), p. 85.

¹⁰ It should be noted that Böttinger and anonymous reviewers in the *Artistisches Notizenblatt* (1823, p. 64), *Blätter für literarische Unterhaltung* (1827, p. 916) and *Kunstblatt* (1828, p. 220) used terms such as *zwei kleine Bilder*, *beide kleineren Stücke* or *zwey kleine Bildchen* when referring to what are presumed to be companion pieces by Friedrich. Herbert von Einem was the first person apart from Friedrich contemporaries to postulate that such nomenclature indicates the pendant status of certain paintings shown at the same time in exhibition. See Herbert von Einem, *Caspar David Friedrich*, (Berlin: Rembrandt Verlag, 1938), pp. 106 and 116.

the Sea (1822) painted by commission for Konsul Joachim Heinrich Wilhelm Wagener.¹¹

Although the two paintings, *A Vault* and *Hut in the Snow* did not share the same register number in the 1827 Dresden exhibition catalogue and they were shown along with a third painting, the now-lost *Moonlight on the Baltic* formerly in the collection of J.C. Dahl, they are related in significant ways which may qualify them as counterparts.¹² If one were to take into consideration their similarities and differences in terms of stylistic treatment, congruity of size, brushwork; Friedrich's use of shallow screening devices during the period of the late 1820s and the pair's inverted compositional pattern of depth; they are arguably meant to represent two contrasting entryways; counter-parts of a type. The latter criterion provides, perhaps, the most convincing evidence of their probable status as pendants. As mentioned in the introduction, a singular door within each painting opens respectively to the opposite jamb of the other, each aperture representing an interior or exterior human-made entrance. The subject of each painting, both of which are described through a unified nomenclature of general manner and form, is unique. This fact, these matchless objects, are what ultimately lead this writer to believe that they are pendants; for it is their status as

¹¹ *Wintry Landscape with Oak and Hunter* (Staatliches Museum, Schwerin, 1811) and *Winter Landscape with Church* (National Gallery, London, 1811) were noted as companion pieces in *Journal des Luxus und der Modem*, 1812, p. 117. *The Solitary Tree* (Nationalgalerie, Staatliche Museen Berlin, 1822) and *Moonrise over the Sea* (Nationalgalerie, Staatliche Museen Berlin, 1822) see Busch, p. 142, William Vaughan, *Caspar David Friedrich*, p. 139, and see letter from C.D. Friedrich to J.H.W. Wagener dated 1 November 1822 in *Caspar David Friedrich: Die Briefe*, ed. Hermann Zschoche, (Hamburg: ConferencePoint Verlag, 2005), pp. 172-3.

¹² *Auktionkatalog Dahl*, 1859, no. 90. *Ein Gewölbe* was assigned the number 605 and *Hütte im Schnee* number 604, see Börsch-Supan/Jähnig, pp. 408-409.

different passageways that conform to the two necessary principles of counterpart-contrast defined broadly by Werner Busch as being the motivation behind Friedrich's choice of pairs – those representing the differentiation between qualities of light and the Protestant pictorial tradition of matching the consecrated with the profane – as I will argue in the following chapters.¹³ In terms of their divergent provenance, it seems that there is evidence that G. A. Reimer might have had *A Vault* in his personal collection and, according to Böttinger, Prince Johann Georg von Sachsen acquired *Hut in the Snow* following its Dresden Academy appearance.¹⁴ Unfortunately, there have been very few instances where presumed pendants have remained in the same collection following their purchase from the artist or his estate – these fortunate pairs include *Monk by the Sea* and *Abbey in the Oak Forest* acquired by the Prussian Crown Prince and, *The Solitary Tree* and *Moonrise over the Sea* commissioned by Wagener. With this in mind, one might understand the urgency in Reimer's claim to have had two pendants in his possession – mistaken though he may have been; if they are placed next to one another in sympathetic arrangement, they are the same size and the path in each meets the other. All of the paintings mentioned thus far in this section are within millimetres of being the exact same size of their counterpart. The sets from the period around 1827-28, *Bushes in the Snow* and *Fir Trees in the Snow*, *Early Snow* and *Fir Forest with Waterfall*, as well as *A Vault* and *Hut in the Snow*, share certain characteristics of contrasting arrangement founded in shallow depths of field which hint at deeper space that is

¹³ Busch, p. 143.

¹⁴ Börsch-Supan/Jähnig, p. 408-09.

centralized. Friedrich's choice of this proscenium device of composition is deliberate and thematized during the 1820s. The punctuation of space by entryways in *A Vault* and *Hut in the Snow* is what sets these two paintings apart from the other four and suggests a relationship with his paintings of entrances into cemeteries and churchyards. Throughout this thesis, I will explore the subject within the two paintings by way of an expanded understanding of the Romantic pendant in terms of its power to reconcile evident caricatures in order to achieve a hidden ideal.

Caspar David Friedrich presented *A Vault* and *The Hut in the Snow* at the 1827 Dresden Royal Academy of the Arts exhibition.¹⁵ A leaflet (*Blätter für literarische Unterhaltung*) was circulated in Dresden announcing their display and describing the works on view. In the *Artistisches Notizenblatt*, Carl August Böttinger tells his reader that through their exposition, Friedrich has once again captivated the viewer with his characteristically idiosyncratic manner.¹⁶ Böttinger also declares one can perceive the sound of a low, resonating spirit in the hall in which they are displayed.¹⁷ The small paintings, on linen, are the same size, 31 x 25 centimetres. *A Vault* (fig. 2.1) situates the viewer in a dark room with the prospect of a short flight of steps leading up into a chamber that opens into light. In this second room, a young fir tree is growing. Petra Kuhlmann-Hodick has identified it as the entrance to a chamber in the Convent

¹⁵ Helmut Börsch-Supan/Jähnig, p. 111.

¹⁶ Carl August Böttinger, *Artistisches Notizenblatt*, 1827, p. 69. Unless otherwise noted, all the translations from the German are my own. In the case of titles, I have left the title in the original German (with some translations into English provided in parentheses); this, unless scholarship in the English language has generated frequently cited translations of the original German in English.

¹⁷ Böttinger, 1827, p. 70.

Church of the Holy Cross near Meissen, outside of Dresden.¹⁸ The ruin was a well-attended site on the itinerary of nineteenth-century tours of Saxony. The painting is linked to a later sepia-brush drawing which, in turn, was derived from a graphite drawing of the interior made during one of Friedrich's sojourns to Meissen to visit his friend, Georg Friedrich Kersting, who was supervisor of painting at the Meissen Porcelain factory from 1818 until his death in 1847 (fig. 2.2 and 2.3).

In contrast, *Hut in the Snow* (fig. 2.4) places the viewer in the out-of-doors facing an opening into a dark passage. Unlike its pendant, this place appears to the modern viewer to lack the specificity of place that *A Vault* describes. In both paintings, the space between the picture plane and these openings is exceedingly shallow, crowding us into a constricted corridor that proceeds from either shadow into light or dim daylight into an unplumbed darkness. Because both images depict human-made structures with channels for passage into and out of their interiors, one would expect that they are representations of dwellings of one sort or another – a viewer tends to look at what is there rather than what is not, focusing on the material presence of walls, not the spaces they enclose. Their corresponding apertures; a black, murky void and a light filled doorway, provide a stark contrast between the two paintings. The resonance of the low unworldly sound detected by Böttinger owes as much to their diminutive size and squat aspect as their ominous visual tone. Read plainly, the allied images evoke the notions of death and resurrection, however, in the next two chapters, I propose to

¹⁸ Petra Kuhlmann-Hodick, 'Zwei Aquarelle Caspar David Friedrich in Dresden und Angers,' *Dresdener Kunstblätter* 4, no. 4, 1996, p. 118. The graphite drawing was done on-site sometime between 1822 and 1824.

expand the construed categories beyond these central Pietist theological matters and introduce the hypothesis that *A Vault* corresponds with the idea of a cave and *Hut in the Snow* to the notion of a mine.

2. Not a Dwelling but a Bridge to the Underworld

Karl Friedrich Schinkel's *Das Felsentor* (1818), a painting in which a dark interior encapsulates the bright view of the outside, is one of a few works that make use of the motif of enclosure within a German landscape as an emphatic framing device (fig. 2.5). There are many more examples, that are less dramatic, to be found in the works of German artists painting in Italy. Journeys to Italian caves were recorded in the travelogues by well-known German artists and writers of the late eighteenth and early nineteenth centuries including, Goethe, Friedrich Leopold Graf zu Stolberg, and Johann Heinrich Meyer.¹⁹ Significant artists such as Jakob Philipp Hackert (1737-1807) and Ferdinand Kobell (1740-1799) included views from the outside of Italian caves in their idealized landscapes, whilst the views of interiors were usually drawn by minor artists for illustrating text (fig. 2.6, 2.7). An exception to this was the Swiss artist, Caspar Wolf known as 'Höhlenwolf,' who included views inside and outside of caves to spectacular effect (fig. 2.8, 2.9). He was striving to capture the sublime effects of the high-altitude landscape of the Swiss Alps whilst structuring his compositions

¹⁹ Goethe, *Italienische Reise*, in *Werke*, (Weimar, 1887-1919), Friedrich Leopold Graf zu Stolberg, *Reise in Deutschland, der Schweiz, Italien und Sicilien*, (Leipzig: 1794) and Johann Heinrich Meyer, *Mahlerische Reise in die Italien Schweiz*, (Zürich: 1793); Meyer contributed etchings to the project.

according to the Golden Section, thus countering Rococo instability in fashion at the time.²⁰ Most German artists who painted the cave as subject were particularly interested in expressing the mythical and magical aura of these spaces emphasizing less a visual effect than a literary one. The other significant subterranean space in Germany was, of course, the mine. The literary arts had embraced this underground world; however, it was rarely visibilised by fine artists.

Unlike caves, which occur naturally within the earth, mined spaces beneath the surface are created by human intervention. There is an art to building structures underground, where the very survival of the workers depended on a sophisticated architectural system. In an issue of the 1792 *Magazin für Bergbaukunde*, a detailed list of the workers at the Freyberger works includes the rank, rate of pay, family status, and housing condition for each and every man employed at the mine.²¹ This account also notes those who were injured, made sick, or killed over the past year – citing date, time, and the circumstance. The premature blowing of a gunpowder charge or the collapse of a tunnel was noted in excruciating detail. Lorenz Oken's *Isis* journal, an interdisciplinary publication that was read widely by scientists and laypersons across the continent and Great Britain, reported a gas explosion at a Saxon coal mine in 1817 and, appropriately, reviewed the safety features of a newly designed *Schwadenlaternen* (fig. 2.10), a lamp used in ventilation shafts, to prevent such

²⁰ Werner Busch, *Das Sentimentalische Bild. Die Krise der Kunst im 18. Jahrhundert und die Geburt der Moderne*, (München: C. H. Beck, 1993), p. 492.

²¹ *Magazin für Bergbaukunde*, vol. 9, 1792, p. 262.

fire-damp explosions.²² Breathing the vapours in a poorly ventilated mine is hazardous if not fatal – a silent killer is black-damp, a highly toxic mixture of nitrogen and carbon dioxide. Designing ventilation for mines was considered as critical as the strategies for tunnel construction.²³ The surface of the ground above the colliery works was perforated with openings for the narrow vertical channels that would carry the bad air and booty of ore to the surface. *Gewölbetheorie* was dedicated to both the creation of a safe vaulting system for mines and ventilation systems. Although fine artists did not appear to be interested in picturing the underground architecture of a mine, lesser-known engravers and etchers were employed to provide illustrations for volumes devoted to the study of colliery engineering.²⁴

There were painters who included the above-ground facilities of mining or smelting works in their oeuvre. The painter, Johann Alexander Thiele (1685-1752), often incorporated these in his famed views of Saxony. Thiele's *Ein Grund zwischen Freiberg und Frauenstein* (1749) includes the smelting works

²² Lorenz Oken, *Isis oder Encyclopädische Zeitung*, vol. 2, no. 29-30, 1817. The lamp reviewed was the Davy lamp, invented in 1815 by British chemist Humphry Davy (1778-1829). The lamp was assembled with a cylinder of wire gauze containing a wick attached to an oil reservoir and surrounded by an iron frame. Unfortunately, even after numerous modifications, the Davy lamp did not reduce the number of fire-damp explosions. This replaced the lamp with an open flame within a three-sided tin frame. Fire-damp was composed of the flammable gas, methane. German terms for fire-damp are *schlagende Wetter* or *Kohlenstaubexplosion*.

²³ German terminology for the ventilation for mines, *die Wetterführung*; and tunnel construction, *die Schachtkunde*.

²⁴ For a history of the architecture of the mine in Germany until the mid-nineteenth century see Franz von Rziha, *Lehrbuch der gesamten Tunnelkunst*, (Berlin: Verlag von Ernst & Korn, 1867), pp. 1-65.

near Freiberg and, *Ausblick vom Mückentürmchen nach Sachsen* (1740) is a view of the area where tin-workers had laboured for centuries (fig. 2.11, 2.12). Both of these paintings contain clouds of smoke that appear to be rising from the local metal-works. Curls of smoke also rise from within the mountain range that figures significantly in Caspar David Friedrich's *The Solitary Tree* (fig. 2.13, 1822). The erroneous identification of the mountain range as the Harz by Börsch-Supan was corrected by Karl-Ludwig Hoch. The mountains are, from left to right, the Schwarzer Berg, Jeschken, Moiselkuppe, Langer Berg, Kalkberg, and Trögelsberg from the Lusatian and Zittauer Gebirge range near Zittau.²⁵ These mountains were known in Friedrich's day for the deposits of iron, copper, and low-grade silver found within them. The productions were modest and, as was the practise then, small smelting works were established near the colliery so that local craftspeople could make utilitarian objects for the local communities. The time of year in *The Solitary Tree* is clearly summer and the fires in the upper-mountains are more likely those of the smelters than of the home fires evident in the towns in the middle ground. The shepherd in the valley below the mountains rests against the centralized tree. His pastoral activity at the foot of a large tree next to still water contrasts with the distant commotion in the mountains where minerals and fire are tended to.

The customary title of *The Hut in the Snow* does not accurately represent its subject. It has been assumed that the structure in the painting is a shelter for

²⁵ Karl-Ludwig Hoch, *Caspar David Friedrich und die böhmischen Berge*, (Dresden: Verlag der Kunst, 1987), pp. 144-46.

hunters or a farmer's storage.²⁶ Its resemblance to Abbé Marc-Antoine Laugier's notion of a primitive hut leaves the impression that this is, indeed, a correct identification of the structure. Laugier understood architecture as a mimetic art, designating nature as the model for the forms of human construction. He believed that the human need for shelter was the origin of architecture. Man, states Laugier, 'leaves the cave determined to compensate by his industry for the omissions and neglect of nature. Some branches broken off in the forest are materials for this purpose. He chooses four of the strongest, and raises them.'²⁷ The famed frontispiece to his *Essai sur l'architecture* (1753), an etching by Charles Eisen, has become perhaps the most frequently reproduced image in modern architectural history (fig. 2.14).²⁸ At first, the pointed archway loosely formed by four intertwining trees in a sepia by Friedrich, *Coastal Landscape with Cross and Statue* (*Küstenlandschaft mit Kreuz und Statue*, 1830), seems to form a reductive version of the Laugier frontispiece, although it was clearly conceived as a sacred grove enclosing the Cross rather than the vault of a dwelling for living beings (fig. 2.15).²⁹ Architectural theory figured prominently in the discourse on Romantic aesthetics and Friedrich could not have been unaware of the debate surrounding the assertion that German architects animated

²⁶ Börsch-Supan, p. 409; Sigrid Hinz, *Caspar David Friedrich als Zeichner. Ein Beitrag zur stilistischen Entwicklung der Zeichnungen und ihrer Bedeutung für die Datierung der Gemälde*, (Greifswald, 1966), p. 110; Koerner, p. 15, Sumowski, 1970, pp. 125, 127, 220.

²⁷ Joseph Rykwert, *On Adam's House in Paradise: the Idea of the Primitive Hut in Architectural History*, (Cambridge: MIT Press, 1981), p. 43.

²⁸ Abbé Marc-Antoine Laugier, *Essai sur l'architecture* (Paris, 1753); Eng. trans. (London: T. Osborne & Shipton, 1755); German translation, (1756).

²⁹ Hermann F. Weiss, 'August D. C. Twesten über Caspar David Friedrich,' *Zeitschrift für Kunstgeschichte*, vol. 54, no. 1, (1991), pp. 118-124.

material forms in the spirit of Nature rather than simply mimicking Nature. In *Grundzüge der Gotischen Baukunst* (1806), Friedrich Schlegel wrote that gothic architecture itself resembled a forest from a distance; the seemingly infinite variety of ornamentation rivalled the diversity of nature herself.³⁰ In his statement, Schlegel limits this conjugation of Nature's infinite multiplicity of forms to the vegetable kingdom; however, as we shall see in the next chapter, it might be possible to argue for the inclusion of the peculiar mineral formations of caves in Nature's inexhaustible glossary of decorative details.

Friedrich's sepia *Coastal Landscape with Cross and Statue* was likely a result of the influence of his close friend Johan Christian Dahl's (1788-1857) musings about folklore and Norwegian stave churches whilst Dahl prepared his *Monuments of a highly developed timber architecture from the earliest centuries in the interior parts of Norway* (*Denkmale einer sehr ausgebildeten Holzbaukunst aus den frühesten Jahrhunderten in den inneren Landschaften Norwegens*, Berlin: 1837) for publication. Dahl was one of many German and Scandinavian theorists who rejected Laugier's premise that Gothic architecture was based on the concept of the primitive hut; an inherently utilitarian view. There were, however, some examples of Abbé Laugier's influence within Germany including the design of palm-crowned columns by Johann Friedrich Dauthe (1749–1816) for his rebuilding of the Nikolaikirche in Leipzig (1784–97), considered by many of his contemporaries as being vulgar. Goethe rejected this French-inspired trend in neo-classical architecture and his position on

³⁰ Friedrich von Schlegel, *Grundzüge der gothischen baukunst: Auf einer Reise durch die Niederlande, Rheingegenden, die Schweiz und einer Teil von Frankreich in der Jahren 1804, in Poetisches Taschenbuch auf den Jahr 1806*, (Berlin: 1806), pp.177-8.

Laugier's primitive hut was not wholly sympathetic as he wrote, 'and yet it seems to me, dear Abbé ... the column is by no means a natural component of our dwellings, on the contrary, it contradicts the character of all our buildings. Our houses did not develop from four columns in four corners, but from four walls on four sides.'³¹

Forest Interior by Moonlight (1823-1830), Friedrich's painting of a man and a woman within the shelter of arboreal growth and earth is closer to Laugier's notion of a primitive hut than *The Hut in the Snow* (fig. 2.16). The eccentric composition juxtaposes the cool light of the moon with the warm glow of a fire whereupon two *Rückenfiguren* are made visible. Even upon close inspection, it is difficult to discern what exactly the warmly lighted refuge is – a grotto in the side of a hill or a roughly built shelter. It is, in fact, a natural formation that used to be more common in the mountains of the Harz. The Goslar physician, Georg Henning Behrens (1662-1712) wrote a popular book on the Harz Mountains in 1703 that was reprinted in German and translated into English and French languages up until the early nineteenth century.³² Behrens' *Hercynia curiosa oder curiöser Harz Wald* presents an account of unusual geological sites such as 'the floating island' near Hochstadt, the famous Scharzfeld and Baumanns caves, and *die Quellungshöhlen* – the swelling-caves of the Harz forest. The latter

³¹ Johann Wolfgang von Goethe, 'On German Architecture,' in *Essays on Art and Literature*, trans. Ellen von Nardroff and Ernst H. von Nardroff, (Princeton: Princeton Univ. Press, 1994 [1772: reprint]), pp. 4-5.

³² Behrens treatment of the Harz caves was noted by Cuvier in *Recherches sur les ossements fossiles, où l'on rétablit les caractères de plusieurs animaux dont les révolutions du globe ont détruit les espèces*, vol. 7, (Paris: Edmond d'Ocagne, 1824), p. 133.

karst-cave formations are produced when a deposit of anhydrite comes into contact with water seeping into the mineral layer (fig. 2.17). The gypsum that results from the chemical reaction ‘swells,’ creating a fragile cavity that frequently opens up like an A-frame pergola on the surface. The entire contents of the ground above the bulge remains intact, although vegetal matter might be set askew according to its position on the arched roof. These are also referred to as *Zwergenkirche*, dwarves’ churches because of their often, low canopy. Local folk knew of their existence and sheltered in them when necessary. Such a formation could also perform handily as an artisanal foundry for small iron implement production or as a gypsum kiln. Friedrich’s image is perplexing since the weather is clear and calm, the trees in the forest appear to be fully in leaf, and the full moon could certainly light the path home. Is it a dwelling, temporary resting-place, or a mountain forge? The surrounding hillsides are peppered with the dreadful stumps of harvested forest. This might suggest its use as a forge or kiln. One could read the setting as a *Flight into Egypt* motif; however, the cavernesque composition and the full moon bestow an Oehlenschläger *Gods of the North* quality to it:

At length the gloomy fogs of night
Became dispelled by sudden light;
Though faint, it failed not to impart
Fresh vigour to the Asa’s heart.
Two torches burning blue anon
A lurid flickering gleam display;
While through the cloven rock the moon
Sends forth a pale and wizard ray.³³

³³ Adam Oehlenschläger, *The Gods of the North: An epic Poem*, trans. William Edward Frye, (London and Paris: Pickering and Stassin and Xavier, 1845), p. 40. Adam Oehlenschläger (1779-1850) was awarded a royal grant from the Danish King to travel for 4 years 1805-1809 throughout Europe. He met Henrik Steffens in Halle and they became life-long friends. In Weimar he visited with Goethe and spent a long period in

This grotto is not necessarily a dwelling nevertheless it is a specified and primitive place which could very well be one of the famed *Quellungshöhlen* used for artisanal purpose.

Another site represented by Friedrich which exists for a purpose other than dwelling is the bridge in a little known painting, *Winterlandschaft* (1827, fig. 2.18). Heidegger's essay 'Building Dwelling Thinking' (*Bauen Wohnen Denken*, 1951) concludes with the statement, 'thinking itself belongs to dwelling in the same sense as building.'³⁴ Although Heidegger's essay has been discussed exhaustively and is not favoured in the current critical debate regarding theory of space, I would like to draw on it in order to shift our thinking away from Laugier's architectural theory as well as away from the accepted identification of the structure in Friedrich's *Hut in the Snow* as a primitive dwelling. I will begin this paradigmatic shift from dwelling to thinking by discussing Heidegger's notion of the 'bridge,' which makes a place come into presence. Instead of seeing Friedrich's hut as a singular object; for a moment, let us view it as a space, more particularly, a threshold – this might lead us to an understanding of its legibility as a singular object that functions as a point of entry rather than a place of rest.

Dresden as the guest of Ludwig Tieck several times and, took advantage of Tieck's renowned library. The German poet wrote a poem, a *Stammbuchgedicht*, to his friend. See Edwin H. Zeydel, 'A Poem from Tieck to Oehlenschläger,' *Modern Language Notes*, vol. 44, no. 3, 1929, pp. 179-181.

³⁴ Martin Heidegger, 'Building Dwelling Thinking,' in *Poetry, Language, Thought*, ed. Albert Hofstadter, (New York: Harper and Row, 1971), p. 150.

The bridge for Heidegger is a *gathering thing* – ‘the bridge gathers to itself in its own way earth and sky, divinities and mortals’³⁵ – however, the nature of its thinghood oscillates between theoretical concept and a practical means of passage; a bridge that is a ‘thing’ operates in the discursive landscape of culture and nature. In his seminal essay *Bridge and Door* (*Brücke und Tür*, 1909), Georg Simmel (1858-1918) defines the dialectical nature of a bridge in terms of its ability to physically unify at the same time that it visibilizes separateness.³⁶ In this essay, Simmel attempts to explain the metaphysical relationship between human beings and nature. Both Heidegger and Simmel understood that, because a bridge is a product of human ingenuity, this enables the bridge to be more than a corridor between two points. It infers a spatial reality beyond itself by virtue of its position as the interstice between two paths that continue beyond two points in either direction. More importantly, in a cultural sense, it divides off one action from another – and from another; approaching, crossing, and progressing; intervals of space and time. Caspar David Friedrich painted the bridge in *Winterlandschaft* in the same year that he completed *A Vault and Hut in the Snow*. Friedrich scholar Andreas Aubert found this work, now in private hands in Zittau, in the collection of the Graf Einsiedel who owned and ran the *Gräflich*

³⁵ Heidegger, 1971. Heidegger uses the term *gathering* again in a spatial sense in his ‘Die Kunst und der Raum,’ (1969) in *Aus der Erfahrung des Denkens*, ed. Hermann Heidegger, in *Gesamtausgabe* 13, (Frankfurt am Main: V. Klostermann, 1983), p. 207, ‘Der Ort öffnet jeweils eine Gegend, indem er die Dinge auf das *Zusammengehören* in ihr versammelt. Im Ort spielt das Versammeln im Sinne des freigebenden Bergens der Dinge in ihre Gegend [emphasis added].’

³⁶ Originally published by Georg Simmel, ‘Brücke und Tür,’ *Der Tag*, 15 September, 1909, English translation by Mark Ritter, ‘Bridge and Door,’ in *Theory, Culture & Society*, 11, 1994, pp. 5-10.

Einsiedelsche Eisenfabrik north of Dresden.³⁷ The trees in the central portion of the arrangement are nearly identical to those behind the *Hut in the Snow*. Respectively to these two pendant works, a threshold of a sort exists in the centre of the *Winterlandschaft* composition. As I hope to demonstrate in the next chapter, the pendant to *Hut in the Snow*, *A Vault*, may also be read as an architectural passage and a sign for a subterranean channel.

The bridge in *Winterlandschaft* provides for a horizontal passage and represents an allegorical descent into Orcus; ‘the cold world of shades’ found in Hölderlin’s *To the Fates* (*An die Parzen*, 1799) which will be discussed at length in the next chapter. The bridge set in the winter season occupies both a specific time and spatial gap; or, quoting Hölderlin from *Bread and Wine* (*Brod und Wein*), where the poet assigns junctive qualities to temporal and spatial intervals, it advises us to leave one place for another:

Urged to be gone. Let us go, then! Off to see open spaces,
Where we may seek what is ours, distant, remote though it be!
One thing is sure even now: at noon or just before midnight,
Whether it is early or late, always a measure exists,
Common to all, though his own to each one is also allotted,
Each of us makes for the place, reaches the place that he can.³⁸

³⁷ Börsch-Supan, p. 409.

³⁸

‘Aufzubrechen. So Komm! Daß wir das Offene schauen,
Daß ein Eigenes wir suchen, so weit es auch ist.
Fest bleibt Eins; es sei um Mittag oder es gehe
Bis in die Mitternacht, immer besteht ein Maas,
Allen gemein, doch jeglichem auch ist eignes beschieden,
Dahin gehet und kommt jeder, wohin er es kann.’

Third strophe from Friedrich Hölderlin, ‘Bread and Wine,’ in *Hölderlin: Selected Poems and Fragments*, trans. Michael Hamburger, (New York: Penguin, 1998), p. 153.

A set of points from which a line continues in two directions is inherently bilaterally disposed whether the points are located in time or space. As Hegel stated in his *Philosophy of Nature*, it is not possible to define points of space since they are actually negations of space.³⁹ Space may only be quantitative; there is no differentiation within space, only in how it is enclosed. In Romantic terms, a bridge is an agent of threshold; therefore, it is a determination of space that exists self-externally – space is Nature determined – the determination is dialectic.⁴⁰

Everything about Friedrich's winter landscape is in spatial or temporal dialectic relationship to everything else; the horizontal plane and the vertical staffage in and of nature, the colour-full white blanket and the colour-less black interruptions on the surface, and a very frozen moment in time that depicts the forward motion of the woman. An elderly woman crosses the simple stone bridge across an icy brook. She is crossing from one bleak landscape to another. There is a second bridge much closer to the picture plane and, in-between the two bridges, the double furrow of a carriage or wagon's wheels appears on either side of the river. There are, apparently, three options from which one could choose in order to cross the waterway at this location. But what is this place? It is a place for people on the way to another human place; however, during the winter, it is not an appropriate 'stoppage,' not a spot to pause in the winter's biting cold.

³⁹ Hegel, 'Section One: Mechanics,' *Philosophy of Nature: Part Two of the Encyclopaedia of the Philosophical Sciences* (1830), trans. A. V. Miller, (Oxford: OUP, 2004), p. 31.

⁴⁰ Hegel, *Philosophy of Nature*, p.28.

The natural scientist and friend to Caspar David Friedrich, Henrik Steffens, noted the relationship between human culture and physical landscape.⁴¹ His desire to communicate the full range of existence – botanical, geological, social, historical and mythological – that interacted on a single plot of earth's surface anticipated the modern discursive discipline of geography.⁴² Heidegger's concept of the four-fold stratification of being – earth, sky, gods, and mortals – might just as well have been assigned to Steffens' notion of place. Steffens sought to describe the identity of presence that is shared by both humans and the landscape in which they live:

Through the interaction of the whole upon the individual, and the individual upon the whole, is generated an identical picture-history, which presupposes the entirety of the landscape of nature as the foundation for all final existence, and all of humanity as the expression of this interaction itself. The expression of the co-existence of all these individuals' interaction in history and nature is *space* – eternity's continually *recumbent* picture.⁴³

In this light, it is relevant for the Romantic to note not only the historical setting of a place, but also its mythological temperament – every place is an event in time; however, which category of time, historical or mythological, determines the meaning of the place. This *Winterlandschaft* is flat and without colour. The

⁴¹ Henrik Steffens, *Hvad jeg oplevede*, vol. 6, (Copenhagen: C. Steen, 1840-45), pp. 109-110.

⁴² For a more complete discussion of Steffens as geographer, see Kenneth Robert Olwig, 'In search of the Nordic Landscape: A personal view,' in *Voices from the North*, ed. Jan Öhman and Kirsten Simonsen, (London: Ashgate, 2003).

⁴³ Henrik Steffens, *Indlæning til Philosophiske Forelæsninger I Kobenhavn, 1803*, (Copenhagen: Gyldendal, 1905), p. 91, translation by Kenneth R. Olwig, 'In search of the Nordic Landscape: A personal view,' in *Voices from the North*, ed. Jan Öhman and Kirsten Simonsen, (London: Ashgate, 2003), pp. 220-21.

presence of the pollard willows on the 'recumbent' ground tells the viewer that this is a floodplain. The stark monotony of the snow-dusted surface is interrupted by the willows and the woman's slightly tilted verticality. According to Greek legend, Orpheus used a branch of willow as a passport to enable him to cross into and out of the underworld and the willow is regarded in favourable light by the Germans. Baltic folk believed that only a living soul could cross a river and, dressed entirely in black; the woman in black is a living person in mourning for the dead. The forward motion of the woman is met by the diagonal inclination of the willows which mirrors her slanted profile. In *Winterlandschaft*, the colour worn by the woman performs in Hegelian symbolic terms as the philosopher stated in his *Philosophy of the Mind*, 'solemnity and dignity are symbolized by black, because in it the play of contingency, of manifoldness and mutability finds no place.'⁴⁴ Her forward motion across the bridge is deliberate and without variance; and death, which lies ahead, is the immutable material conclusion to human life. She has probably just left her home and is on her way to a ritual for the departed. This bridge is a place in-between two places of dwelling, one for the living and one for the dead. Friedrich has chosen to picture a threshold belonging to a particular point of the world; another visual entry for what I will argue is his typologically organized inventory of the junctures of natural, metaphysical, and man-made verges. Painted in the same year as *Winterlandschaft*, *The Hut in the Snow* is such a place; not an enclosure, rather a channel to the world below the surface. Unlike the bridge which lies on a horizontal axis, it is an entry on a vertical axis and its pyramidal shape emphasizes its perpendicular relationship to surface.

⁴⁴ Hegel, *Philosophy of Mind*, p. 81.

3. The Conical Structure

Up until this point, no one has questioned the 'primitive dwelling' reading of *Hut in the Snow*; however, if the original title, *The Hut*, were translated according to its period usage, the so-called hut or *Hütte* could be the entrance to a forge or mineshaft. Like his bridge in *Winterlandschaft*, this is a threshold located in a frozen world but where does it lead? Entries to mines or caves are not always on the vertical face of a mountain as illustrated by the entrance to a cave that was mined for iron in the Iberg Mountain in the Harz (fig. 2.19). The Scharzfeld cave, near Herzberg in the Harz, studied by Goethe, 'is not [entered], as it usually happens, in the side of a rocky cliff or precipice, but by an open fissure, placed like a well, in the surface of a plain field, and communicating directly downwards by a steep but practicable descent on ledges of rock into the body of the cave' (fig. 3.15).⁴⁵ These types of openings, where the aperture is protected by a shelter built of wood beams and loam, are often located at the base of a tree whose roots have grown apart exposing a natural passage to the below. The discovery of an ore vein may occur at these natural fissures. More than one author has noted such an occurrence.⁴⁶ Openings to caves, mine shafts, and forges shared similar structural characteristics. As we shall see, etchings, engravings, and lithographs of the period attest to this.

⁴⁵ William Buckland, *Reliquiae Diluvianae*, 1824, p. 113.

⁴⁶ This is mentioned in multiple locations within works by Agricola, Charpentier, Delius, Lempe, and G. H. Schubert.

Up until the early nineteenth-century, wood was used for construction at small, local mining sites, even in the case of a forge.⁴⁷ German forges were essentially the same from the early part of the seventeenth-century until the 1820s. Usually they consisted of two ovens and one hammer stand with which to manufacture iron implements for practical use.⁴⁸ Until 1800, air to feed the furnace was supplied by bellows, operated by hand; thereafter, blowing machines were introduced.⁴⁹ For many centuries, wood was used as fuel in the form of charcoal to feed the foundry fires as well as for its construction. Often, the temperatures achieved in the hearth were not hot enough to fuse the metal.⁵⁰ It was not until well into the nineteenth century that forges were coke-fired, although many attempts were made earlier. In 1776 when Count von Einsiedel acquired his *Gräfllich Einsiedelsche Eisenfabrik* ironworks at Lauchhammer on the Elbe tributary, the Schwarzer Elster, twenty-five kilometres north of Dresden, one of the two forges was in ruin.⁵¹ Only when the furnace was utilized to produce bricks with which to rebuild the site did the forge and outbuildings become more permanent. An illustration of a Freiberg foundry worker wearing

⁴⁷ Fritz Redlich, 'A German Eighteenth-Century Iron Works during Its First Hundred Years: Notes Contributing to the Unwritten History of European Aristocratic Business Leadership,' *Bulletin of the Business Historical Society*, Vol. 27, No. 2, (June, 1953), p. 76.

⁴⁸ Anders Florén and Göran Rydén, et al., 'The Social Organization of Work at Mines, Furnaces and Forges,' in *Iron-Making Societies: Early Industrial Development in Sweden and Russia, 1600-1900*, ed. Maria Ågren, (New York and Oxford: Berghahn Books, 1998), p. 103.

⁴⁹ Florén and Rydén, p. 103.

⁵⁰ Norman J. G. Pounds, 'Historical Geography of the Iron and Steel Industry of France,' *Annals of the Association of American Geographers*, vol. 47, no. 1, 1957, pp. 3-4.

⁵¹ Redlich, p.76.

an over-sized leather apron and hat to guard against airborne sparks places him in the setting of the hearth-room whose dimensions and shapes are not so unlike those of *A Vault* (fig. 2.84). Historical developments in mining and smelting technologies achieved during the time of Agricola until the early nineteenth century were illustrated within the huge collection of mine and forge models in Freiberg. In his *Meine Reise im deutschen Vaterlande*, Johann Friedrich Korn wrote of the comprehensive collection at Freiberg.⁵² Korn was amazed that so many of the models – water and air pumps, forges for the refinement of metal, and haulage axels similar to those cast in the Braunschweig-Lüneberg coin of Christian Ludwig (fig. 1.6) – were operable for demonstrations. He added that he could barely comprehend the complexity of the machines that moved massive quantities of ore, water, and air underground. The subject of many travelogue entries discussing Dresden, the treasure house of the Saxon princes, the Green Vault, also housed a mineral gallery that contained, ‘everything relating to metallurgy, assay weights, furnaces, ores of all kind, and a model of a mine

⁵² Johann Friedrich Korn, *Meine Reise im deutschen Vaterlande, aus Thüringen ins Riesengebürge zu Elbquellen und durch Böhmen ins Erzgebürge; über Erfurt, Leipzig, Dresden, Baussen, Görlitz, Bunzlau, Warmbrunn, Hirschberg, Arnau, Turnauf, Prag, und Töplitz bis Freyberg*, (Breslau: Hirschberg und Lissa, 1799), pp. 249-50, ‘Die vorzüglichsten Gegenstände sind ein Wassergöpel, verschiedene Stoßheerde, ein Erdbohret, mit dem man viele Faden tief bohren kann, ein ungarische Feuermaschine, verschiedene Arten von Tonne und Hunden; ein Pochwerk, Stoßheerd, Seßund und Siebwerk in Vereinigung; eine Wassertrommel zur Zuleitung frischen Luft, ein Feldgestänge, ein ganzer Schacht in allen seine Theilen, mit den Göpel, Pochwerke, der dazu gehörigen Schmiede und den andern nöthigen Vorrichtungen; ein Wettersaß, bestehend aus zwey Cylindern, wo von der eine in den andern paßt; drückt man den kleinen in den größern hinein, so tritt die zusammengepreßte Luft durch eine, in der Grube gehende Röhre hinab.’

exhibiting the most considerable operations in mining.’⁵³ It was in a similar collection in Goslar that I first saw a structure that resembled the object in the centre of *The Hut in the Snow*. In order to verify its identity as an object belonging to the culture of *Bergwesen*, an examination of technical literature was in order. Through a cautious consolidation of the surveyed published matter, I have developed an understanding not of what I believe the object is but what a Romantic would have thought it was. It is to pictures of such an object which we now must turn.

Christoph Traugott Delius (1728-1779) published his important *Anleitung zu der Bergbaukunst* in Vienna in 1773 and it was reprinted in 1806.⁵⁴ It was an expansion of his *Vom Ursprunge der Gebirge* (1770) and the first modern textbook dedicated both to the theory of the origin of mountains and their ore deposits and, the technology with which to remove these deposits. Delius was a mining official and professor of metallurgy and chemistry at the *Bergakademie Schemnitz*. The discovery for which he is best known, the confirmation of the alternating layers of ore deposits from primary to secondary minerals, transformed the mining industry. He observed that in the Siebenbürgen area of present day Romania, mineral veins containing certain minerals such as malachite and azurite are located at depths up to 120 feet below the surface and are not found below that depth. Delius hypothesized that these minerals require

⁵³ Keysler, vol. IV, p. 283.

⁵⁴ Christoph Traugott Delius, *Anleitung zu der Bergbaukunst*, (Vienna: J.T. Trattner, 1773), and *Anleitung zu der Bergbaukunst nach ihrer Theorie und Ausübung, nebst einer Abhandlung von den Grundsätzen der Bergwerks-Kammeralwissenschaft für die Kaiserl. Königl. Schemnitzer – Bergwerksakademie entworfen*, (Wien: Hof- und Staatsdruckerei, 1806).

much more of the sun's heat for their production; therefore they are located close to the surface. The next layer contains gold, then a rich layer of silver, and well below these noble metals resides the cold metal, lead, which requires much less of the sun's energy for its development. This is the theory that Lorenz Oken would invoke in order to support his contention that although ore grows in darkness, the light of the sun permeates the solid grain of the earth in order to provide the energy needed for its growth. In the *frontispiece* to Delius' *Anleitung zu der Bergbaukunst*, men are surrounded by the implements of their trade; gears for lifting loads, various hand-tools, and measuring devices (fig. 2.20).⁵⁵ Above and behind the group of men in the foreground, the twin conical towers covering the mine's main entrance and the ore-hauling mechanism are situated upon a hill; below this building is the pyramidal shape of a roof shielding the secondary shaft which opens upon the surface of the mound (fig. 2.21, detail). These small details are keys to a deeper understanding of *The Hut in the Snow*.

A triangular head-frame atop a mineshaft had been erected for centuries at small local collieries. A soft-seam of coal, for instance, discovered on the surface would be followed deeper in the ground thus a shaft would be excavated. The pyramidal shape of wood casing was used ubiquitously throughout Germany to shelter the opening of a mine shafts at Imperial, Royal, Electorate, and self-mined sites from weather and to prevent an inadvertent fall into the well. Johann Alexander Thiele depicts a wood-shingled conical structure used to conceal the shaft leading to the tin-mine near Saxon Mückenberg in his *Ausblick vom*

⁵⁵ The etching was designed by F. X. Würth and etched by T. E. Mansfeld.

Mückentürmchen nach Böhmen (fig. 2.22, 1739).⁵⁶ The form was also used to house smelting works, as can be seen in *Plate I* of Delius' *Anleitung zu der Bergbaukunst* (fig. 2.23 and detail, 2.24) and *Plate 12* of G. E. Rost's *Trachten der Berg- und Hüttenleute im Königreiche Sachsen* which illustrates the pageant uniform of the senior cobalt supervisor with the smelting works located in the distance just below the tip of his iron sabel (fig. 2.25 and detail, 2.26).

At times, the scale of the A-framed protective form was enlarged in order to accommodate the lifting mechanism used to haul ore to the surface or an enlarged surface outlet as we can see in *Plate 8* of Gabriel Jars *Voyages metallurgiques* (fig. 2.27 and 2.28, detail).⁵⁷ In this image we are looking at the famed Dorothea and Caroline mine shafts in the Harz Mountains near Clausthal. Other images depict the pyramidal structures at the opening of the Clausthal mines. The Harz mining official, Henning Calvör (1685-1766) published *Acta Historico-Chronologico-Mechanica circa metallurgiam in Hercynia superiori* in 1763.⁵⁸ *Acta Historico-Chronologico-Mechanica* is one of the earliest volumes

⁵⁶ Martin Schuster, 'Katalog der Gemälde,' in *Die schönsten Ansichten aus Sachsen*, ed. Harald Marx, (Dresden: Michel Sandstein Verlag, 2002), p. 122.

⁵⁷ An enlarged surface outlet is a *Schachtweitungsbaue*.

⁵⁸ Henning Calvör, *Acta Historico-Chronologico-Mechanica circa metallurgiam in Hercynia superiori. Oder historisch-chronologische Nachricht und theoretische und practische Beschreibung des Maschinenwesens, und der Huelfsmittel bey dem Bergbau auf dem Oberharze, darin insbesondere gehandelt wird von denen Maschinen und Huelfsmitteln, wodurch der Bergbau befoerdert wird, als von dem Markscheiden, Schacht- und Grubenbau, von Bohren und Schiessen*, 2 volumes, (Braunschweig: Verlag der Fuerstl. Waysenhaus-Buchhandlung, 1763). Henning Calvör established the mining academy in Clausthal. He was known as an erudite thinker who wrote theological and historical works. The book offers an abundance of information about the use of mining apparatus, the construction of tunnels and shafts, as well as the extraction and processing of ores in the upper Harz region.

dedicated to mine engineering, although like the other volumes mentioned thus far, it was utilized in practical conditions until the mid-nineteenth century. The etching-engraving of the Clausthal mines in volume two of Calvör's *Acta Historico-Chronologico-Mechanica* is a fascinating graphic model of the three major shafts; the *Dorotheen*, *Carolinen*, and *Neüe Benedicten* (fig. 2.29, 2.30, 2.31). The prints have fold-out features that allow the viewer to expose two separate prospects of shaft depth from differing angles. The views detail the structure at the main entrance of each principal shaft (fig., 2.32).

Established in 1709, the Dorothea and Caroline were amongst the deepest in Europe.⁵⁹ Their depth attracted Jean André de Luc (1727-1817), the French naturalist who will be discussed in the next chapter on caves. De Luc stopped in Göttingen to procure a set of barometers from his colleague Georg Christoph Lichtenberg (1742-1799), the physicist and aphorist.⁶⁰ He then travelled to the Harz specifically to perform subterranean barometric measurements in order to compare the results with readings taken on the surface.⁶¹ The mineshafts of Dorothea and Caroline were nearly perpendicular to the surface. He positioned an assistant at the surface and arranged to measure the pressure at two separate points along the same vertical axis at precisely the same moment. After the visit to the mines, De Luc proceeded to take comparative readings at Göttingen, Hanover, and atop the Brocken Mountain, the highest elevation in the Harz

⁵⁹ Christian Düntgen, *Geschichte des Bergbaus im Harz*, (Dortmund: Historisches Institut, 2000), p. 9.

⁶⁰ Jean André de Luc, 1777, p. 404.

⁶¹ Jean André de Luc, 'Observations Barométriques sur la Prosondeur des Mine du Hartz Par Jean André de Luc, Membre de la Société Royale, dans une Lettre au Chevalier Baronet Pringle,' *Philosophical Transactions of the Royal Society of London*, vol. 67, 1777, p. 408.

Mountains, in order to determine the height of the mountain. In 1777, De Luc accomplished a comparative observation of profound depth and height through means of abstract empirical measurement. This precise temporal ensnarement of the ephemeral properties of invisible atmosphere was, in a sense, an emblematic act of measuring difference in space – something the philosopher Hegel denied existed.

Caspar David Friedrich sought to communicate the metaphysical differences and similarities along the vertical range of existence, above and below earth's surface, through means of his art. There is something *below* as well as *in* the hut. Through the agency of the pointed structure sheltering an abandoned mineshaft, he revealed not only his ability to penetrate natural and cognitive thresholds but also made known those dead-ends he encountered along the way. *Hut in the Snow* is a breach of time as well as space. We encounter, through the intermediate plane of the structure, the past – geological and historical; the present – frozen and decaying; and the future – vague and mysterious. One thing is certain, the exposed entryway in Friedrich's painting appears abandoned in its dilapidated state and, if it is the opening to a mineshaft, it is dangerous.

4. *Gewölbetheorie* and Deforestation

As mentioned earlier in this chapter, *Gewölbetheorie* figured significantly in the mining industry and Delius made significant contributions to the field. Often when a new stope (underground room) was excavated, parts of the mineral structure were left as pillars, thick columns of undisturbed rock that served as support piers. This was not always possible in strata that contained less granite

or other continuous courses of dense mineral formations; therefore, interior spaces were built similarly to those on the surface that bore heavy loads. *Plate VII* of the twenty-four etched plates that illustrate Delius' *Anleitung zu der Bergbaukunst* depicts masonry vaulting structures designed to stabilize an assortment of types of openings in the walls and ceilings of mine shafts or tunnels (fig. 2.33). The round arch appears to be the shape most favoured by Delius. Stone vaults were used most often near the surface as it was much less practical to transport large quantities of heavy brick deep within the mine than it was to carry timber. *Plate III* includes sixteen figures that detail various configurations of roof-vaulting using wood beams for support (fig. 2.34). *Figure 8* within *Plate III* is a cross-section of an underground tunnel system and *Figures 11-16* are views of timber logs in varied formation set on a schematic ground. In 1793, Johann Friedrich Lempe devoted an entire chapter of his *Magazin für die Bergbaukunde* to the various woods used in underground architecture.⁶² The chapter, 'An Holz,' described the attributes of a range of woods including oak and beech in terms of their appropriate function as ceiling rafters, floor joists, and ladder rungs.

Johann Friedrich Korn, in his *Meine Reise im deutschen Vaterlande*, reported that there was some concern that the millions of wood cords used for mine-vault construction endangered the vitality of the great European forests.⁶³ Looking once again at Friedrich's *Forest Interior by Moonlight*, one notices that the trunks of the tall, yet young trees forming a screen between the full moon and the

⁶² Johann Friedrich Lempe, *Magazin für die Bergbaukunde*, Part VII, Chapter IV, 1793, pp. 95-110. The journal was published in Dresden from 1785 until 1799.

⁶³ Korn, pp. 252-53.

hills above the fire-lit cave are of a small breadth. The stumps that remain of the harvested trees on the hillside are much larger in diameter – even when perspectival scale is taken into consideration. The unfortunate trunks probably belonged to old-growth forest of varied age and species whilst the young trees on the other side of the hill have been recently cultivated in a monocultural plantation. The turn of the eighteenth century saw the beginning of a modern forestry practise that advocated the selective clear-cutting of woodlands and therefore, the advent of single-aged forests. The increased ‘harvesting’ of underground resources required more timber for vault construction. The perceived shortage was addressed through the abolition of *Plenterwirtschaft*, the practise of the woodland peoples of harvesting trees according to specific need and purpose.⁶⁴ By the mid-nineteenth century, there was a movement to return to varied-generational and mixed forests. *Die Waldbau auf natürlicher Grundlage* were a faction of foresters who urged landholders to rid the German forest of the carpet of utilitarian pine and re-plant mixed forest (they advocated going so far as to remove seedlings under the cover of night). These men were perhaps the heirs to the demagogic Romanticists. Recent scholarship has argued that this was not a one-dimensional, anti-modernist movement rather, it was a one that promoted the cultural idea that technology and the exploitation of natural resources could be controlled in order to benefit the people – a proto-Marxist ideology.⁶⁵

⁶⁴ Joachim Radkau, ‘The Wordy Worship of Nature and the Tacit Feeling for Nature in the History of German Forestry,’ *Nature and Society in Historical Context*, eds. Mikulás Teich, Roy Porter, and Bo Gustafsson, (London: Cambridge Press, 1997), p. 231.

⁶⁵ See Thomas Rohkrämer, *Eine andere Moderne? Zivilisationskritik, Natur und Technik in Deutschland 1880-1933*, (Paderborn: Schöningh, 1999). The legacy of this

When one scans various landscapes by Friedrich noticing the character of the trees and their relation to one another, we find that the painter frequently segregated his trees according to species.⁶⁶ Often Friedrich's compositional methodology resulted in the austere appearance of the woodlands. One wonders if this was an aesthetic choice or if that is the way he experienced the forest, as monocultural woodland. The Frenchman Mangourit reported on the state of the woodlands during his travels in Hanover in 1804. During his trek through the Harz Mountains he witnessed a dramatic deforestation in large areas that were the result of a beetle who deposited as many as 80,000 larvae in a fir tree of medium height – this, likely the result of an arboreal imbalance wrought by the advent of monocultural forestry practises.⁶⁷ This, along with the patches of clear-cut, must have been startling for the traveller to see. In any case, the forests of Central and Eastern Germany were under strain during Friedrich's day.

As early as the eighteenth century, images from mining literature provide evidence of intense interest in the sylvan resources of Germany. *Plate XXII* of

movement became historically problematic when proto-ecological movements were embraced by National Socialism, see *How Green Were the Nazis? Nature, Environment, and Nation in the Third Reich*, eds. Franz-Josef Brüggemeier, Marc Cioc, and Thomas Zeller, (Athens: Ohio University Press, 2005).

⁶⁶ One of the areas I wish to explore further is the forest in Friedrich's work; his requisition of the *Tannen-, Buchen-, or Eichen- wald* as a consequential compositional device. The present project I am working on, separate from the thesis centres on the four small *Times of Day* paintings in the Niedersächsisches Landesmuseum, Hanover. The trees in all four works are grouped according to species and in precise quantities. The horizontal registers of tree rows are lined up in rhythmic clusters in accordance to their position in relationship to others within the fore-, middle-, or back-grounds.

⁶⁷ Michel-Ange Bernard Mangourit, *Voyage en Hanovre, fait dans les années 1803 et 1804, contenant la description de ce pays sous ses rapports politiques, religieux, agricoles, commercial, minéralogique*, (Paris: Dentu, 1805), p. 88.

Delius' *Anleitung zu der Bergbaukunst* is an ingenious view of the various routes that timber harvested from a plantation takes in order to be utilized for industrial purpose (fig. 2.35). The print gives the reader an idea of the increased magnitude of the modern large scale mine-works in the German lands. The visual sophistication of the etching is also telling. It reads as a bird's-eye view mapping a mining facility (bottom right) at the edge of a thick forest through which small waterways flow between steep wooded hills. The clever use of *trompe l'oeil* makes it look as though a drawing has been casually laid upon the local map. The curled-up edges of and small tears in the faux sheet of paper is indicative of a drawing that has been used in the field. It details the construction of a dry log track that would act as a pathway down the side of a hill for the timber to slide and a timber water-chute in which lumber could travel effortlessly down the mountain to the mine's mill. In the lower-right corner of the etching, a pyramidal shaped shelter built of timber floats like an island of earth from the tall forest above the colliery. *Plate XII* illustrates various iron ladders and tube pipes for men and air to travel underground – iron is the other material besides wood and stone most often exploited by mining engineers (fig. 2.36). A charming etching in Johann Friedrich Wilhelm von Charpentier's *Mineralogische Geographie der chursächsischen Lande* (1778) is situated within a mine in the Sauberge near Ehrenfriedersdorf in the Erzgebirge Mountains (fig. 2.37).⁶⁸ Charpentier was the Professor of Mathematics and Drawing at the Mining Academy in Freiberg. In Charpentier's text, he describes the physical attributes of the gallery; parallel ore-courses that have created fine splits in the surrounding

⁶⁸ *Plate 2*, Johann Friedrich Wilhelm von Charpentier's *Mineralogische Geographie der chursächsischen Lande*, Leipzig: Siegfried Labrecht Crucius, 1778.

rock, the emergence of ‘floating’ fissures, and the depth of the compartments of ore indicated by drawn cross-hatchings in the etching.⁶⁹ The syntax of the lines in the print visually translates the textually-described mineral features faithfully, though it is the miner in the right corner of the print who examines a fragment of ore by the light of his lamp that is captivating to the lay viewer. He is wearing the costume and bears the lamp of the Saxon miner depicted in G. E. Rost’s *Trachten der Berg- und Hüttenleute im Königreiche Sachsen (Traditional Dress of Miners and Metalworkers in the Kingdom of Saxony*, fig. 2.38). The portable lamp resembles a flat-bottomed, round-crowned tin alcove, coved to enable it to guard the flame from drafts in the tunnels – this is the lamp thought to be responsible for fire-damp ignition thus it was redesigned in 1815 for practical use. On the left-side opposite the huddled miner, the tunnel foreman enters the gallery through a secondary-shaft by way of a ladder. He grasps a different lamp, designed to be hung upon the rungs of a ladder and carried by men of his rank (fig. 2.39).

The illustration that follows this scene illustrates a miner carrying a bundle of hewn timber into the space and it too, is delightfully drawn (fig. 2.40). He enters

⁶⁹ The description for the *Plate 2* reads, in part:

‘Man sieht hier die parallele Lage verschiedener dieser Gänge, die zusammen auf einmal bearbeitet, und ein Riß genannt werden. Die schwächsten zeichnen sich, neben den breiten, nur als kleine Spaltungen im Gesteine aus. Das einbrechende oder innenliegende Erz ist, nach seiner Verschiedenheit, da es zuweilen nur in der Mitte der Gängen, zuweilen an beyden, oder nur an einer Seite, oder hier und da in Gaengen eingestreut gesunden wird, zugleich durch die Schrafirung bemerket worden. Die Flößklüfte, so das Gestein in Lager und Bänke abtheilen, durchschneiden diese Gänge, und sind hierbey vorzüglich mit angegeben worden,’ Charpentier, 1778, p. XLIII.

the lighted gallery from a darker tunnel whose ceiling is low.⁷⁰ Although he bends forward under the weight of his load, the forward movement is purposeful, without any sign of antipathy for his arduous task. He wears a satchel about his waist, a utilitarian pouch unlike the bejewelled ceremonial article in the collection of the Grünes Gewölbe (fig. 3.26). The veins run vertically, so the space will be excavated upwards in order to follow the course. It will be necessary to build scaffolding and ladders from which miners will quarry the ore. Together with the load on his back, I estimate there are approximately 24 meters or 80 linear feet of lumber stacked for use. This is but a very small detail of one room, in one mine. It is staggering to imagine how many board feet of timber it takes to construct the thousands of mine tunnels and shafts in the Erzgebirge Mountains alone. One does not dwell on these thoughts when looking at the Charpentier illustrations. The visual sophistication of the images along with their charm is what holds the viewer's attention. One only needs be reminded that Charpentier was both a Professor of mathematics *and* drawing to comprehend why the illustrations are so exceptional. The fine quality of all of the prints in the Charpentier and Delius volumes suggests that imagining and describing

⁷⁰ The description of *Plate 3* reads:

‘Die dritte Tafel stellt ein dergleichen Ort aus dem so gennanten Stockwerke zu Geyer vor. Hier ist, die mehrere Neigung der parallel liegenden Gaenge ausgenommen, viele Aehnlichkeit mit den Gängen der vorhergedachten Gegend, und was ich von den Flößlüften des dasigen Gesteins gesagt, gilt auch hier; hingegen wird man eine merkliche Verschiedenheit, sowohl in Beimischung der Erze in Gängen, als auch, und was sich hier ganz besonders auszeichnet, in den neben den Gängen im Gesteine verstreuten und beigemischten Erzen wahrnehmen, und die seite 205 davon gegebene hierdurch erlaeutert finden,’ Charpentier, 1778, p. XLIII.

subterranea as well as high-calibre technological innovation required the service of the best artists, draughtsmen, etchers, and empirical observers.

Gabriel Jars (1732-1769), a chemist, metallurgist, member of the Royal Academy of Science, and colleague of Lavoisier and Buffon, was responsible for the development of coal mines in Anjou, silver-lead mining in Brittany, and the first coke-fired iron smelting works in France. In 1757, Jars was sent by the French government to the Saxon provinces in order to observe their mining operations.⁷¹ During the 1750s and 60s, Jars also travelled to Sweden, Holland, England, and Scotland for the same purpose. All along the way, he meticulously sketched everything he observed. Gabriel Jars was, to all intents and purposes, an industrial spy. When he returned to France, he collected his notes into the three volume, *Voyages metallurgiques, ou Recherches et Observations sur les mines et forges*; a classic work on mine engineering.⁷² In volume two, an elegant chart of the mines and foundries surrounding Freiberg, at first glance, appears to be a road map (fig. 2.41). It is, in fact, a plan of the tunnel and shaft system. Clearly, there are several openings on the surface and in the side of a hill. *Plate*

⁷¹ Jean Chevalier, 'La mission de Gabriel Jars dans les mines Britaniques en 1764,' *Transactions of the Newcomen Society*, (London: 1947), pp. 57-68.

⁷² Gabriel Jars, *Voyages metallurgiques, ou Recherches et Observations sur les mines et forges de fer La Fabrication de l'acier, celle du fer-blanc, des plusieurs mines de charbon de terre, faites depuis l'anne 1757 jueques & compris 1769, en Allemagne, Suede, Norwege, Angleterre et Ecosse. Suivies d'un Mémoire sur la circulation de l'air dans les mines, et d'une notice de la Jurisprudence des mines de Charbon dans le Pays de Liege*, (Lyon: 1774-1781), 3 volumes [Reprint: Paris, 1823]. The German version: Gabriel Jars, *Metallurgische Reisen zur Untersuchung und Beobachtung der vornehmsten Eisen-, Stahl-, Blech-, und Steinkohlen- werke in Deutschland, Schweden, Norwegen, England, und Schottland, vom Jahr 1757 bis 1769, Aus dem Französischen übersetzt und mit Anmerkungen begleitet von D.C.A. Gerhard*, (Berlin: C.F. Himburg, 1777-1785), 3 volumes.

7 of *Voyages metallurgiques* is a pedagogical lesson in how to combine, into one image, a charted elevation and a topographical ground plan of identical terrain, mine tunnels and shafts (fig. 2.42). Ventilation shafts and proposed tunnel extensions are included as features in the print. Volume 7 of *Magazin für die Bergbaukunde* has a similar, though simplified, ground plan and elevation of the *Holzkohlen Bergwerkes* near Bad Lauchstädt in the Merseburg-Quefurt district of Saxony-Anhalt (fig. 2.43).⁷³ *Voyages metallurgiques* performed not only as a complete guide for mining operations but also as a manual for the artists and mapmakers charged with the visual description of the industry.

The title-page of *Atlas de la Richesse Minérale* by Antoine-Marie Héron de Villefosse (1774-1852) includes a marvellous etching of mining-works deep within a colliery (fig. 2.44).⁷⁴ A second edition of the work was reviewed by Lorenz Oken in his *Isis* where he noted the fine quality of the illustrations.⁷⁵ Héron de Villefosse was the chief superintendent of the Harz mines from 1803-1805 and the etching includes an administrator of such rank in the immediate foreground of the image. The setting is an enormous underground stope in which

⁷³ Johann Friedrich Lempe, *Magazin für die Bergbaukunde*, vol. 7, 1790, Plate 1.

⁷⁴ Antoine-Marie Héron de Villefosse, *Atlas de la Richesse Minérale, recueil de faits géognostiques et de faits industriels, constatant l'état actuel de l'art des mines et usines, par des exemples authentiques, tirés de célèbres établissements, et rendus sensibles à l'oeil, au moyen de la représentation géométrique des objets*, (Paris: 1819). Héron de Villefosse was *Oberberghauptmann* of the German mining areas between the Rhine and Vistula from 1807-1809, and Director of the Kingdom of Westphalia's mine administration from 1809-1814. The second large plate in the volume is a 'Carte des montagnes du Hartz (Bergmännische Karte vom Harz)' and the third large plate is 'Carte des montagnes métallifères qui séparent la Saxe de la Bohême (Bergmännische Karte vom Erzgebirge).' The remaining plates are plans of mines and machinery.

⁷⁵ Oken, *Isis*, vol. 1, no. 1, p. 9.

miners are seen clambering up and down ladders by the light of their lamps. Hard-rock mining often created large stepped platforms of standing stone similar to those found within mountain quarries. An image of a stone quarry from 1812 in the collection of the Kupferstichkabinett in Dresden is remarkably similar to this print (fig. 2.45). The drawing shows men, viewed from behind, at work on rock. The work on paper (inv. 1927-75) is located in a solander box of unattributed Friedrich drawings in the Dresden collection and, upon close examination one understands why there is some question as to its authenticity. One can argue for attribution in either direction. Despite doubt surrounding its origin, the image is intriguing and does include similar marks to those made to describe the outline of fir trees in autographic drawings by Friedrich during the same period. A different drawing, which bears the inscription *Krippen den 19 Juli 1813* in the Berlin Kupferstichkabinett, undoubtedly by Friedrich, represents a quarry without workers, although the top of a ladder appears behind the large stone in the centre (fig. 2.46). It depicts rows of rectangular-shaped stones stacked on their edge along the vertical periphery of the image which serves to enclose the shallow area leading to an impassable wall of stone behind the pile. The Friedrich drawing expresses a certain claustrophobic sense of restriction that is analogous to the logic of inner space found in the Héron de Villefosse frontispiece. We are not permitted to move past a certain point, visually trapped by the artist's composition.

5. A Rainbow, Porcelain, and Not-Other

Caspar David Friedrich often leads the viewer to an abrupt visual end in his paintings. One such stoppage is particularly relevant to this discussion. *Mountain Landscape with Rainbow* (1810) depicts a lunar rainbow, an unusual meteorological occurrence (fig. 2.47). In a later chapter, I shall address the presence of uncommon atmospheric events in Friedrich's work but, for the purpose of this discussion, it is the dress of the figure and the abyss into which he gazes that is of interest. Based on a sequence of drawings of mountain profiles on a single sheet of paper, we know that the centre of the painting is occupied by the Rosenberg Mountain in the Sächsische Schweiz. The drawing of the mountain was made on 12 May 1808 whilst Friedrich walked the *Fremdenweg* (fig. 2.48). The route, that was obligatory for any self-respecting Dresdener to walk, covered the area from Dresden above Pillnitz through the Liebethaler Grund to Lohmen and then on to the Bastei to Schandau.⁷⁶ It is the land favoured by the Saxon eighteenth century painter, Johann Alexander Thiele. The view in the painting, however, is a composite of many drawings and does not correspond topographically to the land surrounding the Rosenberg. The halted figure in *Mountain Landscape with Rainbow*, a self-portrait of the artist, wears a rather improbable outfit for a city-dwelling Rambler. His white trousers, red waistcoat, and wide-brimmed black hat on the ground beside him are more likely to be worn by an individual active in the mining profession than an urban visitor

⁷⁶ Hoch, 1987, p. 73.

to the mountains. In fact, there are fascinating sartorial correspondences to the formal parade-outfit of a *Freyburger Hüttenmann* (fig. 2.49).

Friedrich's travelling companion during their tour of the Riesengebirge in 1810, Georg Friedrich Kersting, drew his friend often and Friedrich returned the amiable gesture. Friedrich chose to pose Kersting at the source of the Elbe River and, in another watercolour that is inscribed with the date 17 July 1810 and the note, 'almost the entire foreground is in shade,' Kersting wears the identical pair of trousers, hat, and a coat which falls well below his hips (fig. 4.6) that he sported at the Elbe spring.⁷⁷ Likewise, in the known drawings by Kersting of Friedrich during their rambles in the landscape, he usually wears a cap with a visor, dark trousers, and a mid-length coat. The over-sized black hat with large brim on the ground, however, does make an additional appearance as the hat worn by the shepherd in the pendant to *Mountain Landscape with Rainbow*, the now-lost *Landscape with Rainbow* (1810, fig. 2.50). I cannot say with certainty that Friedrich did not have a red waistcoat in his possession, although it does seem unlikely. Not wearing his usual outfit for a journey on-foot, the artist chose to dress himself in the quasi-ethnographical costume of a miner. The ceremonial red waistcoat leaps out from the otherwise dismal setting.

G. E. Rost's *Trachten der Berg- und Hüttenleute im Königreiche Sachsen* (*Traditional Dress of Miners and Metalworkers in the Kingdom of Saxony*) provides lush illustrations of the ceremonial dress of the eleven classes of mining professionals in the region of the Erzgebirge (fig. 2.51 and 2.52).⁷⁸ The special

⁷⁷ '... nimmt beinahe den ganzen Vorgrunde ein; Schatten,' Hofstätter, p. 534.

⁷⁸ G.E. Rost, *Trachten der Berg- und Hüttenleute im Königreiche Sachsen*, Freiberg, 1831.

livery of the miner - often rich in colour and ornamentation - indicates his rank, role, and regional affiliation. The Rost volume was in part a tribute to Christoph Weigel's *Bildnisse aller Hütten Beambten und Bedienten* of 1724 (fig. 2.53).⁷⁹ Both volumes meticulously delineate the costumes worn by the mining officials and workers for special occasions as well as, in a few instances, for their usual activities. Mining festivals in Germany have a long tradition dating back to the twelfth century.⁸⁰ In the Harz Mountains, the quarterly inspection report initiated a festival and, in the Erzgebirge as well as the Harz, the *Knappschaften* (miner fraternities) commonly held thanksgiving carnivals on Shrove Tuesday.⁸¹ The cultural specificity of the Saxon mining industry is evidenced in fashion as well as the rituals performed above and below the surface of the earth. Members of the mining profession are depicted as small porcelain figurines produced at Meissen by Johann Joachim Kändler (1706-1775) and Peter Reinicke (1715-1768) in 1750. As Kändler stated in his *Taxa* journals of 1740-46, the entire project which represents all of the mining official and workers according to their

⁷⁹ Christoph Weigel (1654-1725), a prolific publisher as well as an artist known for a remarkable book containing 100 etchings by Weigel from drawings by Caspar Luyken of costumed persons from around the world. Ulrich Megerle, *Neu-eröffnete Welt-Galleria. Worinnen sehr curios und begnügt unter die Augen kommen allerley Aufzüge und Kleidungen unterschiedlicher Stände und Nationen: forderist aber ist darinnen in Kupffer entworffen die Kayserliche Hoffstatt in Wien*, (Nuremberg: Christoph Weigel, 1703) and *Etwas für Alle ä Stands- Ambts- Bewerbs-Persohnenä* (Nuremberg: Christoph Weigel, 1699).

⁸⁰ Christoph Wilhelm Jacob Gatterer, *Anleitung, den Harz und andere Bergwerke mit Nutzen bereisen*, Göttingen, 1785-92.

⁸¹ Klaus Tenfelde, "Mining Festivals in the Nineteenth Century," *Journal of Contemporary History*, Vol. 13, No. 2, 1978, p. 378.

rank were modelled upon Weigel's engravings.⁸² A pit under-foreman can be found in the collection of the Porzellan Galerie in the Zwinger in Dresden; his engraved cognate is Plate XV in Weigel's catalogue (fig. 2.54, 2.55). The collection in Dresden was comprised of as many as 25,000 pieces by 1721 according to Keysler's travelogue entry on 23 October 1730; including an example from nearly every edition of small objects produced since its inception. This formal attempt at the preservation and curation of Meissen porcelain production continued long past Friedrich's day.

The progress of the Meissen porcelain manufactory parallels many important developments, historical and technological, in Germany. The history of Meissen porcelain during the eighteenth century centred on the relationship between Prussia and Saxony. It is one full of intrigue and betrayal when modellers, painters, and arcanists were held hostage or kidnapped for their valued knowledge and technical prowess. Despite political strife and flexible loyalties, the porcelain centre prospered. It came as a shock when in 1810, one-hundred years after its establishment; the entire manufactory was to be closed.⁸³ Wagon-loads of Meissen workers travelled to Dresden in order to deliver a petition of protest to the Electorate and, the closure was prevented only to be threatened again three years later and this time it was the French that imposed themselves on the manufactory. In 1813, French occupation of the castle at Meissen ensued. The workers were forced to make a contribution to mitigate Meissen's 1.3 million thaler share of the total 7 million thalers that Napoleon required of

⁸² Ingelore Menzhausen, *Alt-Meissner Porzellan in Dresden*, (Berlin: Henschelverlag Kunst und Fesellschaft, 1988), p. 209.

⁸³ *Meissen Porzellan*, ed. Helmut Reibig, (Dresden: Verlag der Kunst, 1981), p. 172.

Saxony.⁸⁴ A sliding scale was implemented that required the Meissen arcanist to contribute four thalers, the painter, six groschen and the yard worker, two. This fuelled the anti-feudal movement already forming in parts of Germany. After France's defeat, Georg Friedrich Kersting who had fought in the Napoleonic Wars became the lead painter in 1818 – he assisted in the production and painting of over 134 pieces for the Duke of Wellington's Service manufactured to commemorate the allied victory over Napoleon.⁸⁵ By 1764, 117 painters were employed at the Meissen porcelain works, so one can imagine the responsibility such a post held for Kersting.⁸⁶ In 1814, a formal relationship between the Dresden Art Academy and the Meissen porcelain works was established; however, the assignment to a post at Meissen was often greeted with despair – it was an undesired outpost for an ambitious artist who preferred Dresden life. Ludwig Richter was appointed to the post of drawing master at Meissen in 1828 which turned out to be detrimental both for his students and career. Richter rarely appeared at the factory and, when he did, he complained bitterly that he should be in Italy.⁸⁷

In terms of technological innovations in porcelain, two advances that figure significantly in our discussion of painting and mining are the improvements of kaolin clay compounds and developments in the manufacture of artisanal pigments. Discoveries of various clays in the regions of Saxony were frequently reported in the scientific and popular journals. True or hard-paste porcelain consists of clay which is produced combining minerals that have resulted from

⁸⁴ Reibig, 1981, p. 178.

⁸⁵ Reibig, p. 181.

⁸⁶ Menzhausen, p. 23.

⁸⁷ Reibig, p. 461.

the decay of granite and feldspathic rock; known as kaolin. The mountains in and around Saxony have a granite superstructure; thus the fine quality of clays from this region. Leonhard's 1821 edition of *Mineralogisches Taschenbuch* reprinted an article that detailed the precise locations of the newest discoveries of kaolin deposits near Meissen and Aue.⁸⁸ There is an interesting intersection of mining, chemistry, pigments, and painters that exists in Meissen. A mining official from Freiberg by the name of C. F. Wentzel improved the blue ground formed in the under-glaze of Meissen porcelain in 1782.⁸⁹ In his study on metallurgy, Gabriel Jars reveals 'le plus grand secret' of the Saxons is the *Schneeberger Blau*, cobalt mined from the Schneeberg works near the town of Aue in Saxony.⁹⁰ The Jars volume also provides visual aids with which to understand how to best process the cobalt. Apparently, there was also a good quality blue to be found in the region of Freiberg as evidenced by G. E. Rost's *Plate 10* depicting the *Blaufarbenarbeiter* from the Freiberg works in his ceremonial dress. Charpentier comments that cobalt found in adjacent areas to the Schneeberg have similar quality to that most prized in the original vein discovered there.⁹¹ Joseph Banks' copy [BL: 990.c.2] of the twelfth volume of the *Bergmännisches Journal* published in Freiberg is devoted to a discussion of the various pigment minerals used by the painters of Meissen porcelain,

⁸⁸ Reprint of Oelschlaegel, 'Vorkommen den Porzellanerde bei Seiliz, unweit Meissen,' in *Schriften der Dresdener Gesellschaft für Mineralogie*, vol. 1, p. 57 in *Mineralogisches Taschenbuch*, ed. Karl Caesar Ritter von Leonhard, vol. 2, Frankfurt am Main, 1821, pp. 892-4 and 'Vorkommen der Kaolins bei Aue,' pp. 887-8.

⁸⁹ Reibig, p. 461.

⁹⁰ Gabriel Jars, *Voyages metallurgiques*, vol. 2, p. 522.

⁹¹ Charpentier, 1799, p. 170.

including the properties of various cobalt compounds.⁹² Smalt is an impure vitreous cobalt blue used more often by porcelain painters than easel painters; even so, a few of the Dresden painters used the mineral. Aviva Burnstock has conducted a thorough analysis of the paint layers and their structure in Friedrich's *Winter Landscape* in the collection of the National Gallery in London.⁹³ She notes that Friedrich used smalt in his painting despite the availability of the Saxon blues. She speculates that the coarse texture and transparent quality along with his stippled method of brushwork creates the shimmering effect found in many of his works. Friedrich kept abreast of the latest developments in pigment chemistry through his association with Kersting. It was, in fact, during a visit with Kersting at Meissen that Friedrich drew *A Vault*.

In *A Vault*, *The Hut in the Snow*, and *Mountain Landscape with Rainbow*, absence is in far greater abundance than presence. The hollows within these paintings are not filled; instead, the voids themselves are the subject of the paintings. The architectural surfaces of the *Vault* hold and reflect light like the facets of a gem, though the vault itself is empty. *The Hut in the Snow* conveys the sense of unoccupied void more than the impression of mineral potency; the morbid darkness defends against entry rather than inviting it. The paucity of paint and the rising vapour in the centre of *Mountain Landscape with Rainbow* perform physically to emphasize the material emptiness of the abysmal space. The downward gaze of the miner looks 'in' rather than 'out' and the hollow of

⁹² *Bergmännisches Journal*, ed. Alexander Wilhelm Köhler, vol. 12, no. 6, 1788.

⁹³ Aviva Burnstock, 'The Materials and Technique of the *Winter Landscape*,' in *National Gallery Technical Bulletin*, vol. 24, 2003, pp. 52-54.

the upside-down hat stripped from his head echoes the emptiness of the valley. A wind blows through the area as evidenced by the stirrings in his hair and through the leaves of the elder tree to his left and the oak behind him. The elder tree is believed to have extraordinary galvanic powers that are amplified when they come into contact with a vine.⁹⁴ These beliefs originated from the observable fact that, if the elder tree is uprooted and then replanted, its branches behave as if they were roots. The elder tree performs as a significant motif within both E. T. A. Hoffmann's *Der golden Topf* and Heinrich von Kleist's *Das Käthchen von Heilbronn* – both of these stories engage with the natural sciences as well as folklore.⁹⁵ In Northern Germany, it is customary for males to doff their hats in the presence of an elder tree, so we cannot be certain as to whether the wind or cultural habit removed the hat from the miner's head.

In Teutonic myth, the elder is the tree in which the goddess Hulda dwells, German goddess of the wind and the moon.⁹⁶ The elder tree is connected with the goddess of the underworld, Hela. She appears in the *Edda* as the goddess of nine hells whose abode is anguish and threshold is a precipice.⁹⁷ If one stares at the elder tree in *Mountain Landscape with Rainbow* long enough, it begins to take on the form of a raging female demon with a gaping maw in place of

⁹⁴ G. Meyrink, *Der weisse Dominikaner*, (München: Langen Müller, 1981), p. 131.

⁹⁵ In E. T. A. Hoffmann's 'Der golden Topf', the student Anselmus receives his first contact with the 'other' world whilst sitting beneath an elder tree. For more on the 'sleep-talking' scene that takes place beneath an elder in Heinrich von Kleist's *Das Käthchen von Heilbronn* see Steven R. Huff, 'The Holunder Motif in Kleist's *Das Käthchen von Heilbronn* and Its Nineteenth-Century Context,' *The German Quarterly*, vol. 64, vol. 3, (Summer, 1991), pp. 304-312.

⁹⁶ Known also by the names Holde and Hölle, and subject of *Frau Hölle*, a fairy tale collected by the Grimm Brothers in *Kinder- und Hausmärchen*, 1812, no. 24.

⁹⁷ Oehlenschlaeger, p. xlviii.

shadowed and wind-blown foliage (fig. 2.56, detail). The miner does not appear to be rattled by the spirits of the deep. His mind is fixed on the land beneath; his body rests against a granite monolith (fig. 2.57, detail). In contrast, in an etching published in *Archiv für Mineralogie* made from a drawing by painter, scientist and Friedrich student Carl Gustav Carus on 7 October 1828, the figure of Carus stands upright in rapt attention upon a stone slab, commanding the view into a stratified chasm (fig. 2.58, detail).⁹⁸ Ironically, Friedrich's miner is rooted in the obscure infernal core through the meta-symbolic machinations of his mind and Carus is held at a distance from an exceptionally well-documented interior by his empirically-inclined investigative thought; reflective or analytical, the minds of the two men are oscillating between what each observes and cogitates. 'Do you want to know nature? Then look inside yourself,' wrote Henrik Steffens, 'and in your gradual intellectual enlightenment, you may have the privilege of looking on nature's stages of development. Do you want to know yourself? Observe nature, and her works are of the same essence as your mind.'⁹⁹ One senses the self-containment in Carus; he is separated from nature by virtue of the process of differentiation he engages in as he analyzes the geological features before him. The only restraint evident in Friedrich's image is the visual effect of the miner being engulfed by the large rock against which he leans.

⁹⁸ Carl Gustav Carus, Plate VI of *Archiv für Mineralogie, Geognosie, Bergbau und Hüttenkunde*, ed. C. J. B. Karsten, Berlin, 1829. Carus' drawing was made eighteen years after Friedrich's painting.

⁹⁹ Henrik Steffens translated in Dietrich von Engelhardt, 'Science, Society and Culture in the Romantic *Naturforschung* around 1800,' in *Nature and Society in Historical Context*, eds. Mikulas Teich, Roy Porter, Bo Gustafsson, (London: Cambridge Univ. Press, 1997), p. 199.

The dearth of vegetation visible on the distant mountain and steaming vapour that rises from the abyss in *Mountain Landscape with Rainbow* is reminiscent of certain landscape features in E.T.A. Hoffmann's description of the Falun mine in his *Mines of Falun* (*Die Bergwerke zu Falun*, 1819):

Not a tree, not a blade of grass to be seen in all the bare, blank, crumbling congeries of stony chasms; the pointed, jagged, indented masses of rock tower aloft all round in wonderful forms ... In the abyss itself lie in wild confusion – pell-mell – stones, slag, and scoria, and an eternal stupefying sulphurous vapour rises from the depths, as if the hell-broth, whose reek poisons and kills all the green gladsome of nature, were being brewed down below.¹⁰⁰

Carl Linnaeus also found the Swedish mine to be like, 'Pluto's restless, infernal kingdom ... these gloomy places to which no daylight ever penetrates.'¹⁰¹ *Mountain Landscape with Rainbow* seems more allied with these hellish descriptions of the Falun mine, the sulphurous world of the *Edda*, and the mythological goddess of the Underworld; than with the Christian emblem of hope that is offered as a standard reading of the painting. The centre of the strange landscape illuminated by the moon hovering behind dark clouds contains nothing. Friedrich has pictured the underground, eternal nothingness, the primordial aspect of the divine. This is not the absence of matter; rather, it is the non-appearance of determination.

So why is it that Friedrich is so preoccupied with non-attendance? I believe it was his desire to create an apophatic representation of God. In the German mystic tradition of Meister Eckhart (1260-1328), Nicholas of Cusa (1401-1464), and Jakob Böhme (1575-1624), Friedrich sought to know God by way of

¹⁰⁰ Hoffmann, *The Mines of Falun*, pp. 293-4.

¹⁰¹ Wilfrid Blunt, *The Compleat Naturalist: A Life of Linnaeus*, (London: C. Frances Lincoln, 2001), p. 74.

negation.¹⁰² Negative theology defines what God *is* by naming what God is not. God is everything, though not particulars; so God is nothing. One finds God in nothingness. A spelunker enters the void of a cave to view the marvellous mineral formations, study the bones; to observe the strata within. It is a non-intervention, a passive act; whereas, in a mine, the active worker excavates thus generating void. The act of mining *takes away from*, yet at the same time produces dynamic potential. In an apophatic sense, the miner creates nothingness and in so doing, describes God. The mystical vitalism of Schelling understood God as a self-developing consciousness – a realm of potent void. Nicholas of Cusa understood space as potent and that:

A potency does not cease unless it is actualized. For actuality is the end and the perfection of potency; otherwise, the potency would be in vain. And so, there would be no potency, since nothing is in vain. But because potency does not bring itself into actuality (for this would be inconsistent), a *mover* is needed in order to move the potency to actuality. In this way, the mind sees nature and natural motion and Not-other, which is the Nature-of-nature, which shines forth in nature [emphasis added].¹⁰³

In *Mountain Landscape with Rainbow*, Friedrich the painter, dressed as a miner, is equivalent to Cusa's *mover*; he is motionless on the hillside because it is his

¹⁰² For a discussion on the influence of the German mystics on Romanticism see Ernst Benz, *The Mystical Sources of German Romantic Philosophy*, trans. B. R. Reynolds and E. M. Paul, Pittsburgh, 1983; and for Cusa's influence specifically see Walter Schulze, *Der Gott der Neuzeitlichen Metaphysik*, (Pfullingen: Neake, 1982), pp. 11-30. Hans Blumenberg in *Die Legitimität der Neuzeit*, (Frankfurt am Main: Suhrkamp Verlag, 1988), pp. 558-638.

¹⁰³ Nicholas Cusa, from *Nicholas of Cusa on God as Not-other: A Translation of De Li Non Aliud*, trans. Jasper Hopkins, (Minneapolis: The Arthur J. Banning Press, 1987), no. 125.

mind, not his body which moves 'the potency to actuality.' *Mountain Landscape with Rainbow* contains a miner in ritual dress beneath a rainbow that forms a vault above an abyss from which vapour rises countering the rain that falls. The light of the moon is obscured by clouds; the hat of the miner does not cover his head, and he does not look up at the rare lunar rainbow, but down towards nothingness. Everything Friedrich paints is not-God; though God is present as not-other. Friedrich must paint *around* the space that is occupied by God, thereby meta-symbolically representing God as not-other.

The vault of the rainbow creates a space below it which encompasses nothing; and this is an opportunity for:

the forms to bestow being and being-known. And so, what is not formed (whether because it precedes or succeeds form) is not comprehended – e.g., God, matter (*hyle*), nothing, and the like. When we attain to these things by mental vision, we attain to them either beyond or short of comprehension. But since we are unable to communicate the vision apart from words, we cannot without recourse to the verb 'to be' discourse about what is not, because otherwise those who hear us would not understand. Hence, just as these mental visions are beyond comprehension, so too they are beyond expression. Moreover, since the locutions about them are devoid of precision, they are improper – for instance, when we say 'matter is matter', 'nothing is nothing', and so on. Therefore, it is necessary to speculate. For example, when someone sees snow through a red glass, he sees the snow and attributes the appearance of redness not to the snow but to the glass. The mind does something similar when it views the unformed through a form.¹⁰⁴

A miner performs the act of envisioning 'the unformed through a form,' when he reads the signs of potential courses of ore as if they are hieroglyphs of nature. Ore-courses are the lines underneath earth's surface that draw together the world

¹⁰⁴ Nicholas Cusa, no. 33.

(fig. 2.23 and 2.59).¹⁰⁵ They are the vehicles for telluric force that emanates from deep within the earth. A Romantic metaphor likens metals of the earth to blood moving through veins; the life-force of the planet. It is no wonder then, that above all other labour, the work of a miner was the highest calling during the age of the German Romantic. 'The Saxons have distinguished themselves by their skill in mining,' wrote Johann Kaspar Riesbeck, 'Their strong bodies, their indefatigable industry, and their good understanding, particularly qualify them for this kind of employment, which is undoubtedly the most complicated and laborious of all human occupations, and which requires the greatest variety of knowledge to bring to perfection ... the cold, pensive, inquisitive, penetrating, preserving, and indefatigable German.'¹⁰⁶ What Friedrich strove to accomplish in *Mountain Landscape with Rainbow* was the impossible figuration of form bestowing being. In order to achieve this, he drew intricately detailed drawings beneath his paintings with graphite, charcoal, and ink.¹⁰⁷ Some of these may be seen by the naked eye, others only under reflected infra-red lighting. He laboured over this underlying structure, then, covered it up.

¹⁰⁵ A collection of reports from various writers including Werner, Weissenbach, and Herder that documents over 800 known ore-veins around Freiberg alone may be found in *Gangstudien, oder, Beiträge zur Kenntniss der Erzgänge* ed. Bernhard von Cotta, (Freiberg: Verlag von J. G. Engelhardt, 1850), p. iii.

¹⁰⁶ Johann Kaspar Riesbeck, *Travels through Germany, in a series of letters*, vol. 2, London, 1787, p. 188.

¹⁰⁷ Ingo Sandner, 'Besonderheiten der Unterzeichnung auf Gemälden der Romantik,' in *Das 19. Jahrhundert und die Restaurierung. Beiträge zur Malerei, Maltechnik und Konserverung*, ed. Heinz Althöfer, Munich, 1987, pp. 165-70.

6. Graves, Thistles, Will and Chance

I believe one can argue convincingly that Friedrich's paintings contain ciphers of void and signs of mining culture. But what do his paintings of burials have to do with mineral voids within the earth? The famed anecdote regarding a hidden treasure that is discovered whilst digging a grave might hold a clue. For centuries, the excavation tale was told for the purpose of explaining that some wonders are natural events and not the result of divine intervention. From the Ancient into the early Modern Era, scholars divided wonders into two broad categories, those that are the consequence of a chance event, such as a lightning strike, and those that are the result of divine intervention, a virgin birth, for example. Despite his posthumous reputation as an alchemical master, the 13th C. German Dominican monk, Albertus Magnus sought to demystify seemingly supernatural events in his lifetime. As did Aristotle, Albertus Magnus made reference to the discovery of a hidden treasure whilst digging a grave [*Physics* (2.1.17)].¹⁰⁸ The ancient story is an allusion to the unearthing of a potential mine rather than a miraculous existing cache hidden from sight. This idea was transposed into a less symbolic tale within Sebastian Münster's famed *Cosmographia* of 1550. Without being dependent on its discovery through a

¹⁰⁸ Aristotle explained the difference between an accident and a miracle with the example of a man finding a treasure whilst planting; 'Accident means that which attaches to something and can be truly asserted, but neither of necessity nor usually, e.g. if some one in digging a hole for a plant has found treasure. This – the finding of treasure – is for the man who dug the hole an accident; for neither does the one come of necessity from the other or after the other, nor, if a man plants, does he usually find treasure.' Aristotle, *Metaphysics*, trans. W. D. Ross, Book V, Part 30, lines 13-19.

chance burial, Münster suggested the use of a divining rod as a more practical means with which to find a mineral lode. Near the left rim of the seventeenth-century coin of the Duke of Braunschweig-Lüneberg, we can see a diviner at work (fig. 1.6). The practise was still popular in the eighteenth century as evidenced in Christoph Weigel's *Bildnisse aller Hütten Beambten und Bedienten* which contains a plate illustrating the pageant costume of the diviner (fig. 2.60). Dietrich Georg Kieser's *System des Tellurismus* (1822), a treatise on the manifestations of telluric forces in Nature and human consciousness, devotes several pages to a theory of its effectiveness.¹⁰⁹ Georgius Agricola's *De re metallica* included a woodcut illustrating the practise as well as expressing doubts about its reliability (fig. 2.61).¹¹⁰ Agricola notes the importance of having a skilled dowser in his essay *Bermannus* of 1530, despite the fact that

¹⁰⁹ Dietrich Georg Kieser, *System des Tellurismus oder Thierischen Magnetismus. Ein Handbuch für Naturforscher und Aerzte*, vol. 1, (Leipzig: Herbig, 1822), pp. 161-176.

¹¹⁰ Sebastian Münster, *Cosmographia Universalis*, 1550, p. 9. Georg Agricola, *De re metallica*, Book 2, 1556, 'It is a conspicuous fact that these cunning manipulators do not use a straight twig, but a forked one cut from a hazel bush, or from some other wood equally flexible, so that if it be held in the hands, as they are accustomed to hold it, it turns in a circle or any man wherever he stands. Nor is it strange that the twig does not turn when held by the inexperienced, because they either grasp the forks of the twig too tightly or hold them too loosely. Nevertheless, these things give rise to the faith among common miners that veins are discovered by the use of twigs, because whilst using these they do accidentally discover some; but it more often happens that they lose their labour, and although they might discover a vein, they become none the less exhausted in digging useless trenches than do the miners who prospect in an unfortunate locality. Therefore a miner, since we think he ought to be a good and serious man, should not make use of an enchanted twig, because if he is prudent and skilled in the natural signs, he understands that a forked stick is of no use to him, for as I have said before, there are the natural indications of the veins which he can see for himself without the help of twigs.'

Martin Luther in 1518 had included dowsing in his list of acts that break the first commandment.¹¹¹

The tale of the accidental discovery of a treasure through the digging of a grave has persisted in German fables. Although it is unlikely that Friedrich was representing any specific story, his sepia of an open grave at the base of a birch tree, the folkloric symbol of new beginnings, suggests a connection to the motif in spirit (fig. 2.62). Certainly, his *Der goldene Kelch von Bubbin* touched upon the notion of a hidden cache below the surface. The freshly dug grave most certainly is not a mine; however, the object suspended above it has a sense of preciousness about it. The composition of *Sarg auf einem frischen Grab* (1835) has an emblematic structure that situates the object of burial in a central position surrounded by other entities, animate and inanimate, thus prompting the viewer to read all the objects in relationship to the sarcophagus. There are several other sepias by Friedrich in which a gravesite is the focus; most include an owl. Conventional wisdom supposes the owl is a sign for Christian knowledge or death. It has been suggested that these drawings represent the artist's acknowledgement of his own mortality. This sepia, however, has a very different logic about it. Here I propose that Friedrich was transposing Christian imagery into metallurgical symbolism thus liberating the objects from the narrow limitation of their literal sense.

¹¹¹ William Barrett and Theodore Besterman, *The Divining Rod: An Experimental and Psychological Investigation*, London, 1926, p. 7. The authors offer evidence that the use of rod divination for mining purposes originated in the Harz and, was introduced to England during the reign of Elizabeth I by miners imported from the Harz to Cornwall. They also report that a poet, Caspar Brusch, wrote a verse to commemorate the discovery of rich veins of ore in the mountains of the Erzgebirge in 1542 (p. 9).

In *Sarg auf einem frischen Grab*, a lattice of loose boards laid over the burial chamber supports a small sarcophagus. In the foreground, two shovels overlap one another casually, resembling the crossed tools of the miner and, the lattice of boards suggest the pattern of a ladder – a familiar visual permutation. A fine example of an emblem representing the ‘knowledge’ of the miner is the vignette etching on the title-page of Johann Friedrich Lempe’s *Magazin für die Bergbaukunde* published as ten volumes in Dresden from 1785 until 1799 (Fig. 2.63). The image consists of a stone marker or crypt that displays two pairs of crossed pick-axes and hammers engraved upon its surface. The basic design for the monument appears to have been taken from Johann Daniel Preissler’s richly illustrated *Gründliche Anleitung* handbook for landscape artists – the very same author that Friedrich copied after under the tutelage of Johann Friedrich Quistorp.¹¹² The flaming lamp of the miner sits atop the monument which exhibits signs of age and decrepitude. The miner featured in *Plate One, Gemeiner Bergmann in Arbeitstracht*, of G.E. Rost’s collection of mining and foundry costumes, wears such a lantern round his neck as I have already noted. The ground on which the monument is situated has been torn from the earth and

¹¹² Johann Daniel Preissler, *Gründliche Anleitung, welcher man sich im Nachzeichnen schöner Landschaften oder Prospecten bedienen kan ... Sechste Auflage*, (Nürnberg, 1766), Table XIV. Preissler (1666-1737) was Director of the Academy of Painting in Nürnberg. His book was used for almost a century in the German academies as an exemplar of proper landscape composition and as a model source for staffage and architectural objects in contrived views. The volume from which Friedrich’s surviving copies exist is Johann Daniel Preissler’s *Die durch Theorie erfundene Practic, Oder Gründlich-verfasste Regeln deren man sich als einer Anleitung zu berühmter Künstlere Zeichen=Werken bestens bedienen kan*, (Nürnberg, J.J. Fleischmann, 1763-1768). It was published in four parts and the drawings were on based on clothed and unclothed models of classical and mythological figures found in the third part.

is floating on the page. Tools of the trade are casually strewn on the ground next to or lean against the stone marker. Two sets of these tools are in the customary crossed-configuration to the left and centre, whilst instruments of measurement are nearby on the right; the chained component of one dangles off the edge of the sectioned earth emphasising the spatial disjuncture of a fragment separated from the whole. Behind the crypt, a ladder rises next to a coffer of raw ore.

The ladder, assorted tools, the monument, lamp and ore that populate the *Magazin für die Bergbaukunde* title-page echo the *Arma Christi* ladder, other Instruments of the Passion, the Tomb of Christ, requisite crowing rooster, and skulls of Golgotha found in fifteenth and sixteenth-century German woodcut representations of Christ as the Man of Sorrows (fig. 2.64 and 2.65). The frontispiece to Weigel's *Bildnisse aller Hütten Beamten und Bedienten* offers a more complex representation of the mining industry, although it contains some of the symbolic correspondences just mentioned (fig. 2.53). In the aforementioned image of *Ein Ruthen-Gänger*, the portrayal of mineral-diviner holding the characteristically forked rod, a set of crossed implements lies on the ground close to him. When Friedrich's sepia is viewed with these other images in mind, one might surmise that his is not only a pious Protestant icon of mortality but also a reductive representation of the combined emblems of the Man of Sorrows and the Miner; the providers of heaven and earth's treasures, respectively. There is a botanical presence in *Sarg auf einem frischen Grab* that contributes significantly to this reading.

Large milk thistles, the plant of the Virgin Mary, both surround and dwarf the coffin.¹¹³ The thorny plants give the impression that they are standing watch over a child's burial, an aberrant event, rarely commemorated in Art. In Gordon's *Travels in Germany*, the author remarked at length as to the proceedings at the burial of a flower-covered sarcophagus in Germany. At first, the quiet and sombre expression belied the tumultuousness to come - 'the interment was well-attended; nothing much to note until the moment of interment the lid lifted off the coffin as it was not bolted; and the body shown to those attending; tears gushed; great sobs; no one was not deeply affected.'¹¹⁴ G. H. Schubert recorded similar circumstances at the grave of the Johann Friedrich Oberlin [1740-1826], where, 'the sound of lamentation at the grave of Oberlin was pardonable, for it was the wailing of the dying for the dead.'¹¹⁵ According to this report, many mourned for the Lutheran pastor known for his generosity towards children and his object-based instructional methods that insisted on learning about nature through sketching.

¹¹³ *Silybum marianum*, in German folklore is associated with the mammary glands of the Virgin. In the spirit of keeping with the tradition of providing the identity of the source drawings for Friedrich's work, I shall offer the following: the thistle plant in the immediate foreground and to the right is based on a graphite drawing of 24 July 1799 (Hinz 144) from the *Skizzenbuch von 1799*, Berlin, Kupferstichkabinett (Inv. Nr. F II 652 – 144); the thistle plant to just left of the centre on a drawing of 26 June, 1799 (Hinz 139) from the *Skizzenbuch von 1799*, Berlin, Kupferstichkabinett (Inv. Nr. F II 652 – 139); the plant on the left edge on a drawing dated 13 July 1813 from the *Skizzenblattfolge, 1812-1815*, in the Nationalgalerie, Oslo. The composition in its entirety is based on a drawing (Hinz 363) in the Hamburg, Kunsthalle (Inv. Nr. 41112).

¹¹⁴ Gordon, *Travels in Germany*, 1828, pp. 75-76.

¹¹⁵ G.H. Schubert, *Memoirs of John Frederic Oberlin*, anonymous translator, London, 1840, p. 67.

An etching by Daniel Nikolaus Chodowiecki for Theodor Gottlieb von Hippel's *Lebensläufe nach aufsteigender Linie* (1778-1781), a popular semi-autobiographical novel influenced by Kant's ideas concerned with morality as well as read by Hegel and Marx, illustrates three graveside events from the novel.¹¹⁶ The three etchings firstly; show clergy and mourners watching as soil from the grave is being returned to it (fig. 2.66); secondly, a woman in great distress supported by three companions (fig. 2.67); and finally, a man and woman standing with expressions of great sadness at one end of a freshly made grave (fig. 2.68). Stylistically, the latter two of Chodowiecki's images have much in common with the *Magazin für die Bergbaukunde* frontispiece; the silhouetting of the scene against white paper, for instance. An obvious exception to this is the fact that the tools and implements are substituted with mourners. The content of Friedrich's sepia is more closely allied with the vignette for the technical publication than these images, which attend to a given autobiographical narrative. Friedrich seems focused on the objects associated with burial, rather than the unfortunate creature inside the coffin. Chodowiecki's mourners are focused on the deceased. His images are closer to the voluble tenor of graveside services in German lands that was even more exaggerated at the burial of a child.

¹¹⁶ Theodor Gottlieb von Hippel (1741-1796) became a friend and colleague of Kant after he attended Kant's lectures on physical geography. It was a common practise, one encouraged by Kant, for students to create transcripts of his lectures and pass around copies. It is well-documented that Kant's lectures were attended by people other than students, such as skilled workers, military officers, writers and merchants. See Anke Lindemann-Stark, *Leben Und Lebensläufe Des Theodor Gottlieb Von Hippel*, (Röhrig Universitätsverlag, 2000). Many of Kant's precepts were embedded, via the student transcripts, into Hippel's writings; specifically *Lebenslaufe nach aufsteigender Linie*. (see intro. Reinhard Brandt and Werner Stark, *Kants Vorlesungen über Anthropologie*, in *Kants gesammelte Schriften*, (Berlin: Walter de Gruyter, 1997), lvi ff.

These powerful funereal sounds of mourning were replaced by a more solemn ritual during the month of November. On *Totensonntag*, gravesites were cleaned and decorated with various items including flowers, wreaths, and evergreens.¹¹⁷ In 1816, the day was officially set aside by Friedrich Wilhelm III of Prussia to commemorate the dead. This practise had been observed since the sixteenth century in Germany at the instigation of Martin Luther. It consisted, in the first instance, of Protestant ministers delivering specialized sermons focusing less on the death of Christ than on his Resurrection told through selected biblical verse. The sermon was followed by the singing of hymns meant to comfort the congregants rather than to induce fits of sorrow.¹¹⁸ During the nineteenth century, *Totensonntag* became more of a folkloric tradition as gravesites were adorned with floral remembrances and hymns of Resurrection were sung. In *Sarg auf einem frischen Grab*, the floral adornments, lack of leaves on the birch tree, together with the advanced state of the thistles as having gone to seed indicates a late autumnal setting.

If this were indeed a November *Totensonntag*, it is odd the grave is open. It is difficult to discern if the coffin is about to be interned or if it has recently been exhumed. The fact that the wreaths are in the tree is strange because the adornments would be added on *Totensonntag* long after the initial burial. There are no attendees at the gravesite; yet the coffin sits as though it was recently exhumed, surrounded by mounds of earth and only centimetres away from the trunk of the tree. The presence of the young birch likely indicates the

¹¹⁷ W. Jannasch, 'Totensonntag,' in *Die Religion in Geschichte und Gegenwart*, ed. Kurt Galling, et al., vol. 6, (Tübingen: Mohr, 1957-65), pp. 956-57.

¹¹⁸ See Georg Rietschel, *Lehrbuch der Liturgik*, vol. 1, (Berlin: Reuther & Reichard, 1900), pp. 212-14.

sarcophagus belongs to a male child. Baltic tradition held that the soul of a woman would travel into lindens or fir trees and the soul of a man would enter that of an oak or birch upon death thus their respective graves would be marked by a cross made of the appropriate wood. Often the cross took the form, ubiquitous in Friedrich's work and particularly well represented in a watercolour by Johann Christoph Erhard (1795-1822) as well as in one of the Chodowiecki etchings just discussed, of a pyramidal-roofed pole, thought to be the sign for a mountain cloaked in mist (fig. 2.69).¹¹⁹ The sole marker for this grave is the birch tree. There are three giant thistle plants that encircle the site.

According to legend, the down of the thistle supplied the bedding for the Christ Child and the sap of the plant is associated with the milk of the Virgin's breast. The plant is also linked to Venus in Germanic folklore and Lucretius recognizes Venus as the creator of universal life; an identity that later would be closely associated with the Christian Virgin.¹²⁰ Hildegard von Bingen dubbed it *vehedistel* (Venus thistle). Thistle grows prolifically on Thuringian *Horselberg*, the mountain of Venus, where the famed German knight Tannhäuser, poet and the subject of a medieval ballad, sought refuge as a hermit in her cave.¹²¹ It is

¹¹⁹ See Marija Gimbutas, *Ancient Symbolism in Lithuanian Folk Art*, (Philadelphia, 1958), p. 99.

¹²⁰ Lucretius, *Of the Nature of Things*, trans. by W. E. Leonard, (Los Angeles: 1957), p. 3.

¹²¹ As much as the Ossian legend infused Romantic art and literature, so too did the Tannhäuser legend and the literature on this is vast. See J. W. Thomas, *Tannhäuser: Poet and Legend*, University of North Carolina Studies in the Germanic Languages and Literatures No. 77, (Chapel Hill: The University of North Carolina Press), 1974, and H. Lomnitzer and U. Müller eds., *Tannhäuser, Die lyrischen Gedichte der Handschriften C J. Abbildungen und Materialien zur gesamten Überlieferung der Texte und ihrer Wirkungsgeschichte und zu den Melodien*, (Göppingen, 1973). Ludwig Achim Von

possible that the *Horselberg* is illustrated in a 15th Century German woodcut in the print collection of the National Gallery of Art, Washington, DC (fig. 4.42). The woodcut, *The Way of Salvation*, appears to have resonance here; its setting is a mountainside covered with milk thistles. The mountain itself has anthropomorphic qualities that verge on the obscene if one perceives the two rocky outcroppings that mirror one another just below the peak as breasts or knees and the cloven avenue on which the mnemonic banderols are placed as a birth canal. In Friedrich's sepia, as in the woodcut, the presence of the thistle suggests the attendance of the Virgin. The cavity of the child's grave in Friedrich's image symbolizes the golden forge of the Virgin; the holy womb that produced Christ. Christ, himself, is represented by the wreaths that symbolize the Crown of Thorns suspended in the tree above the grave. The three wreaths are accompanied by a floral cross and an anchor. The higher position of the cross and the lower position of the anchor in the tree represent the higher and lower realms between which the sarcophagus is located. The anchor is a symbol of hope and is Mary's symbol - its crescent shape corresponding to shape of the moon. Together they communicate hope and faith by representing the Mother and the Son. The image is eerily similar to the Rosicrucian emblem of resurrection; the image of a sarcophagus which contains the bones of a future

Arnin and Clemens Brentano, *Des Knaben Wunderhorn* (1806) includes 'Der Tannhäuser,' (I, pp. 97-101) from *Venus-Berg von Kornmann, dann in Prätorii Bloksberg-Verrichtung*, (Leipzig, 1668), pp. 19-25, Ludwig Tieck, *Der getreue Eckhart und der Tannenhäuser* (1799), E. T. A. Hoffmann, *Der Kampf der Sänger*, 1818 are all versions of the tale written by members of Friedrich's immediate and secondary circle of acquaintances. These are of course followed by versions by Heine.

king, after its extraction from the oven-grave (fig. 2.70).¹²² I do not mean to suggest that there is a direct connection between the figure of the oven-grave and Friedrich's sepia, although one may deduce that the shared emblematic attributes in Northern European iconographic tradition with alchemical imagery might be at work here.

The lesson of the buried treasure story makes a distinction between acts of fate and those of will, and may help to clarify the difference between the character of the cave and of the mine as understood by Friedrich's contemporaries. The conflict over the theoretical relationship of the living principles of nature and the ideology of autonomous human will was manifest in the titanic clash between two Romantic philosophers, Schelling and the early Fichte.¹²³ Caspar David Friedrich was Schellingian in his theoretical disposition, although he exhibited a Fichtean political temper. The philosophical difference between the two thinkers might be epitomized by contrasting the two subterranean systems. The formation of a cave is a natural event, dependent on a series of violent ruptures long past. According to Schelling's view, this protracted history of rupture is evidence of Nature's stages of development. The formation of a mine - the consequence of an intervening power - is a superlative example of the Fichtean doctrine of active human will. The mine and the cave are inextricably related to one another by their inherent interiority. It is in the

¹²² In Freemasonry, the Resurrection is re-enacted as the *Torment of the Metals* in a ceremony that is a ritual of unification of metals through transformation by burial.

¹²³ See Isaiah Berlin, 'The Restrained Romantics,' in *The Roots of Romanticism*, (London: 1999), p. 90. Berlin, by his own admission, takes a broad view on the issue of Fichte and Schelling, though I am indebted to his elucidation on the topic. The philosophical issues raised here are well considered, however, not in relationship to the oeuvre of Caspar David Friedrich.

extent of their maturity that they differ fundamentally. The cave is an ancient, restorative space that shelters bears, thieves, and hermits – yet, in the Romantic imagination, it pulsates with spatial intensity. The comparatively adolescent mine is a dynamic space that grows ore. It is, simultaneously, an earthly womb and violent place – a forge, as attested to by Konrad of Würzburg’s allegorical poem *Die goldenen Schmiede* dedicated to the Virgin Mary; paradoxically a nourishing womb and oven of all consuming-fire.¹²⁴ This seemingly concurrent reality might be possible if we measure the duration of the earth’s womb in geological, rather than historical terms. However, Fichte saw time through a prism of subjective realism; absolute ego, the prerogative of the human mind. For Fichte, time is a form of understanding borne of the imagination – human thought enlivened material existence – thoughts were kin to the products of a mine.¹²⁵ Schelling understood matter and accident as inseparable, that both are essential for the outcome of the object - thus Chance participates as much as Will in the course of progress. It is the exploration of the mine, not the extraction of the Fichtean-thought trove that Schelling values. In a sense, Fichte elevated the cavity of the Mind (*Geist*) and Schelling, the immanence of the Soul (*Seele*).¹²⁶

¹²⁴ Wilhelm Grimm, *Konrads von Würzburg Goldene Schmiede*, (Berlin: Verlag von Karl J. Klemann, 1840).

¹²⁵ Johann Gottlieb Fichte, *Die Wissenschaftslehre, in ihrem allgemeinen Umrisse dargestellt*, IX, (1810), p. 7.

¹²⁶ Deleuze seeks to remedy this tension between Fichte and Schelling’s reception of space and time. By assigning qualities to a certain form of empiricism, he redefines the meaning of ‘immanence.’ See Gilles Deleuze, *Pure Immanence: Essays on a Life*, trans. by Anne Boyman, (London: 2001). Isaiah Berlin respectfully stated there was nothing in Bergson that could not be found first in Schelling and he would probably say the same in regard to Deleuze (Berlin, p. 98).

The Scottish travelogue writer John Carr wrote of witnessing the ‘blowing of the mine,’ in Germany.¹²⁷ It was a detonation that caused explosions both awful and sublime, ‘a deep toned thunder ... which rolled through the vast and gloomy caverns of this profound abyss.’¹²⁸ He was fortunate enough to have heard this following, rather than during, his descent to the principal pit of the mine via a bucket then deeper, ‘by crazy ladders, placed almost perpendicularly, a mode which attended with much trouble and considerable peril; the bottom was covered with indissoluble ice.’ Linnaeus described a similar descent at the Falu Gruva, ‘We went the whole way down by wooden ladders, mostly of twenty rungs each, hanging vertically and free of the wall. Often they were joined in pairs and only supported at their ends, so that they swayed about.’¹²⁹ One needs only to look at the Gabriel Jars etching of the Clausthal mines mentioned earlier in this chapter to be reminded of the terrible journey that most of the philosophers, writers, artists, and students of mining undertook when entering a mine. Henrik Steffens took his students to the Harz for their erudition but I wonder if the journey was not also intended to provoke an epiphany of depth. Heinrich Heine made the voyage into the Clausthal mines in the Harz Mountains in central Germany where he received a carnal epiphany by means of his descent through the passages of Dorothy and Caroline:

I descended first into the Caroline. That is the dirtiest and most unpleasant Caroline I ever knew. The ladder rungs are filthily wet. And from one ladder to another we go down, with the foreman in front always giving assurances that it is not at all dangerous, only one must hold fast with his hands onto the rungs

¹²⁷ John Carr, *A Northern Summer or Travels through the Baltic... in the year 1804*, (Glasgow: D. MacKenzie, 1806), p. 112.

¹²⁸ Carr, p. 113.

¹²⁹ Blunt, 2001, p. 74.

and not look at his feet and become dizzy, and only for Heaven's sake not step on the side plank, where the whizzing bucket rope is now going up, and where two weeks ago a careless person crashed down and unhappily broke his neck ... Panting for air I climbed several dozen ladders up again, and my foreman led me to the Dorothy mine through a long and narrow passage cut into the hillside. Here it is airier and fresher and the ladders are cleaner but also longer and steeper than in the Caroline. Here I began to feel better, especially since I became aware of living creatures. In the depths wandering gleams became visible; miners with their miner's lamps gradually came up with the greeting, 'Glück auf!'¹³⁰

Heine's ironic speech belies the fear that he likely experienced as he descended deep into the closed spaces below.

The extraction of ore required re-enactment of the earthquake, the most aggressive of geological acts.¹³¹ The Saxon mineralogist, Agricola likened the subterranean world to a forge that heated vapours whose escape caused earthquakes and volcanic eruptions. In the eighteenth century, Kant likened this release to the respiratory action of human lungs and, Benjamin Franklin postulated that the explosions of underground gases were manifest as lightning and thunder. Precious gems and minerals were the progeny of the gaseous blasts in the world beneath the surface. Mining methods, in a very real sense, were re-enactments of subterranean transformation, acts of human will inflicted on the Natural World. Novalis, the famed Romantic writer of fantastic tales was trained as geologist and mining engineer and, was keenly aware of this connection. He was also cognisant that eighteenth century philosophies of aesthetics reflected

¹³⁰ Heine, 1826, pp. 36-37.

¹³¹ Lucretius identified underground winds as the cause for earthquakes and the Roman influenced Agricola who wrote the first notable book on physical geology, *De Ortu et Causis Subterraneorum* in 1546 where he describes wind and water as powerful geological forces.

certain principles found in the theories of earth's formation promulgated by his teacher, Abraham Gottlob Werner, director of the Freiberg mining academy.¹³² In 1774, the same year that Werner offered his theory, Johann Georg Sulzer invented the term *Einbildungskraft* to distinguish 'the power of the human mind to build its own network of associations from raw experience.'¹³³ When Novalis wrote in his allegory of mining, *Heinrich von Ofterdingen*, 1799, that 'Nature is approaching human beings... a silent human artist,' he signals that Nature and humans share the ennobling power to create either gems of material wealth or treasures of cultural value.¹³⁴

Henrik Steffens made a direct analogy between the mind and the mine,

It seems the whisper of a dream, to hear that calm mediation germinates in the solid grain of the mind reducing all the antitheses of life and thought to the primitive antithesis of life and thought, just as magnetism germinates in the solid metallic grain of the earth, likewise reducing the antitheses of the latter to the primitive polarity; - that the understanding detaches itself from this solid centre of mediation, where all things rest in holy alliance, generating, with infinite mobility, but according to fixed laws, new antitheses in the original one, just as electricity separates itself from the primitive polarity, moving everything with its mobility, in order to exhibit new polarities I the products of its union; - that thoughts converted into actions in mutual penetration engender a common offspring of social relations, wherein man recognizes the faculties of his life, just as electricity,

¹³² A. G. Werner, *Von den äusserlichen Kennzeichen der Fossilien*, (Leipzig: Siegfried Lebrecht Crusius, 1774). In this volume Werner discusses the characteristics of certain reds, blues, yellows, blacks and browns; including a dissertation on the magnetic, phosphorescent, as well as the external characteristics of mineral colour.

¹³³ Timothy Mitchell, *Art and Science in German Landscape Painting 1770-1840*, (Oxford: 1993), p. 13. see also Johann Georg Sulzer, *Allgemeine Theorie der Schöne Künste*, 1774.

¹³⁴ Novalis, *Heinrich von Ofterdingen*, 1802, trans. from the German by Hilty Palmer in *Henry von Ofterdingen* (New York: Frederick Ungar Publishing Co., 1964), p. 88.

incorporated in a chemical process, gives rise to numerous relations of the planetary bodies.¹³⁵

Steffens sought to establish a parallel between the apparent systems of earth's creation and those structures yet unknown in the generation of thought; he wished to reconcile the doctrines of Schelling and Fichte.

In his role of mining engineer, Novalis studied the succession of stages in the processing of ore, beginning with the act of extraction to its refinement through smelting. His identification of the mine as a forge for the creation of precious stones rather than the production of potential fuel for industry is notable.¹³⁶ Novalis and Steffens were educated at the Freiberg Mining Academy so that they could improve commercial output through technological innovation, yet they could not overlook the intrinsic worth of the mine as a metaphor for the human soul.¹³⁷ For these men, there is a tenuous link between material and spiritual capacities of generation. Steffens emphatically states the difference in the constitution of the powers:

The Spiritual is its own source, its own emanation, and its own direction; it is its own force, its own material, and its own structure; it is its own painter, colour, and picture. Beside it, there is nothing; whatever exists, exists only in and through it. Matter is not a hearth upon which afterwards the flame of the Spiritual is kindled; the Spiritual is at once the hearth, the process of combustion and the flame.¹³⁸

¹³⁵ Henrik Steffens, *Beyträge zur inner Naturgeschichte der Erde*, 1801, p. 85.

¹³⁶ Novalis, ed. Paul Kluckhohn, Richard Samuel, and Hans-Joachim Mähl, *Schriften*, I (Stuttgart: 1960-75), p.104.

¹³⁷ Theodor Ziolkowski, *German Romanticism and Its Institutions*, Princeton, 1990, pp. 18-63. Another relevant thinker concerning these matters is the natural philosopher, Gotthilf Heinrich von Schubert.

¹³⁸ Steffens, 1801, p. 120.

Steffens draws a distinction between the hearth and the matter which enters and departs in a new form. The hearth is a void. It is not-something. Here, we revisit the idea of God as not-other; and, perhaps understand the conceptual equivalency of the hollow of the grave and the dismal valley in *Mountain Landscape with Rainbow*. Resembling the womb, the forge was feminized by writers – and this likely resulted in a certain amount of anxiety. Heine expressed this in his Clausthal mine passage in *Harzreise*. It might be going too far to suggest that Philipp Otto Runge's political masterpiece, *Downfall of the Fatherland* may surreptitiously express it (fig. 2.71). Steffens, however, faced his anxiety through his love of natural science. He was drawn to the life of a miner when he,

Had to crawl through the narrow passageway, the slightest circumstances grew important, and the structure of the mountain, the object of my research stood in closest relationship with the tasks which the practical miner had to perform. Here, I first learned with what obstacles man has to contend when he unlocks the earth to gain its hidden treasure for history; how opposing elements stand in the way of his penetration, how now the brittle falling rock, the waters streaming up from below can destroy the work of many years; how the miner must watch with uninterrupted anxiety every outbreak of those hostile forces with which he battles, in order to turn them to his own victorious purpose, and make his adversaries his helpers.¹³⁹

¹³⁹ Henrik Steffens, *Was ich erlebte*, vol. 4, p. 51. 'Wenn ich in eine Grube hineinfahr und durch Stollen und Strecken kroch, war mir der geringste Umstand wichtig und die Struktüre des Gebirges, der ich nach forschen wollte, stand in der genauesten Verbindung mit den Aufgaben, die der praktische Bergmann zu lösen hatte. Hier sah ich zuerst ein, mit welchen Schwierigkeiten man zu kämpfen hat, indem man das Gebirge aufschließt, um seine Schätze für die Geschichte zu gewinnen; wie die widerstrebenden Elemente sich dem Hineindringenden entgegenstellten, wie bald das mürbe leicht zerfallende Gestein, bald das von unten mächtig hervorquellende Wasser mit den fluten von oben im Bündriß, das Werk vieler Jahre zu zerstören sucht; wie der Bergmann mit steter Aufmerksamkeit auf eine jede Aeüßerung der seindseligen Kräste, mit denen er

Romantic literature and Caspar David Friedrich's subterranean work mirror that same anxiety found in the work of the literati geologists, Steffens and Novalis, in relation to these concepts of human and divine creation, chance and will; and the settings that model this dialecticism – tombs and forges, caves and mines.

7. An Elliptical Foundry

Before the army of Napoleon entered southern German States in 1806, wreaking havoc on the region, Novalis heralded a new 'golden' age of geological stasis. In his unfinished tale, *Heinrich von Ofterdingen* (1799), he declared that his contemporaries lived in a settled time, one that followed ages of violent disturbance wrought on the surface of the earth, far away from the subterranean worlds that were the shelters from and, at times, the sources of Nature's purest aggression. The ancient depths become a favourite, albeit unfathomable, topographic locale for German Romantic literature and the source of a new kind of topophilia and national identity. The chthonic worlds, evident in motifs of caves and mines, had long provided an *Ur*-landscape setting in the development of the German imagination.

During the period of the French occupation of German States, the stability of Novalis' geological golden age was challenged – caves became hiding places not restorative settings and, the spoils of mines were harnessed for war. The travelogue writer Alexander Gordon commented on the fact, that despite their

einen bedenklichen Kampf wagt, lauern muß, um, was ihm drohend entgegentrat, sich dienstbar zu machen und für seine Zwecke siegreich zu benußen.'

aptitude to be great soldiers, the Germans were fond of peace.¹⁴⁰ Peace was interrupted by Napoleon's invasion and Germans turned to the lode in the landscape below to provide metallurgical means of resistance. Iron-works as well as iron mines had operated in the regions of Saxony, Silesia, and the Erzgebirge for centuries. The industrialisation of Prussian during the 18th century created a strong export economy with iron as one of the leading products sent abroad and this enabled them to draw on the newly established industry in order to mobilize against the French.¹⁴¹ This was in part due to the influx of English technology. For years the mining industries of Great Britain and the German states exchanged both manpower and technology – sometimes through industrial espionage.¹⁴² Miners from the Harz taught the Welsh methods for the detection and exhumation of ore veins and; in the middle of the 18th century, major new foundries were built in Prussian Silesia with the machinery and know-how imported from England. The *Journal des Luxus und der Moden* reported on the success with small castings in iron of objects of art at the Lauchhammer Iron-works in Saxony after the sculptors switched from loam to wax for their models

¹⁴⁰ Gordon, *Travels in Germany*, p. 76.

¹⁴¹ Elisabeth Schmuttermeier, *Eisenkunstguß - Gerät und Schmuck. In: Eisenkunstguss der ersten Hälfte des 19. Jahrhunderts aus den Sammlungen des Österreichischen Museum für angewandte Kunst*, Wien, 1992, p. 37.

¹⁴² An example of this may be found as evidence in the form of a drawing in the Deutsches Museum that Georg Reichenbach (1771-1826), the inventor of surveying instruments (the theodolite) and other optical instruments. Reichenbach tricked a night watchman into allowing him to see James Watt's steam engine during his visit to England in 1791. Reichenbach was a great technological innovator; for instance, he was responsible for the design of a water pump that was used continuously for nearly one hundred years to assist in the extraction of brine from salt mines in Bavaria.

and the director carried out modernization of their furnaces.¹⁴³ The director, Graf Detlev von Einsiedel, was a patron of the arts (he owned Friedrich's *Winterlandschaft*, 1828) and a cabinet minister who befriended Novalis in his youth only to become a consolidator of political authority in his adulthood.¹⁴⁴ By 1830, he was brought down from power by the Dresden riots witnessed by Friedrich as attested to in a letter dated 11 September 1830.¹⁴⁵ In 1806, just two years after its founding, the addition of two reverberatory furnaces and two cupola furnaces improved the quality of iron objects and increased the capacity of the Royal Prussian Ironworks factory at Berlin (*Königliche Eisengiesserei bei Berlin*).¹⁴⁶ These innovations in manufacturing had a profound effect on the development of modern architecture in Germany, as may be observed in the structure of the casting shed of the Sayn bei Neuweid Ironworks designed by the architect Carl Ludwig Althans (1788-1864).

The factory of the Sayn Ironworks, now a museum, is a fascinating fusion of the gothic basilica form and fish belly shape used in shipbuilding (fig. 2.72). Althans created an entirely new structural type that relied on mass-produced iron

¹⁴³ 'Grafflich Einsiedelesches Eisenwerk' in *Journal des Luxus und der Moden*, I, 1786, p. 366ff and XII, 1797, pp. 321-22.

¹⁴⁴ Ludwig Beck, *Die Geschichte des Eisens in Technischer und kulturgeschichtlicher Beziehung*, (Braunschweig: Friedrich Vieweg und Sohn Verlag, 1899), p. 105.

¹⁴⁵ See, Karl von Weber, 'Detlev Graf von Einsiedel, Königlich Sächsischer Cabinetts-Minister', *Archiv für Sächsische Geschichte*, Vol. 1, 1863, pp. 129-93. Friedrich's letter to his brothers is reproduced in *Caspar David Friedrich: Die Briefe*, ed. Herrmann Zschoche, (Hamburg: Conference Point Verlag, 2005), p. 209.

¹⁴⁶ See Albrecht Pyritz, 'A History of Cast-Iron Technology and the Prussian Iron Art Industry,' in *Cast iron from Central Europe, 1800-1850*, eds. Schmuttermeier, Elisabeth and Ostergard, Derek E. (New York: Bard Graduate Center for Studies in the Decorative Arts, 1994), p. 129.

members (fig. 2.73).¹⁴⁷ The roof trusses are based on an elliptical arch whose design was innovative enough to land the Sayn foundry on the itinerary of the well-educated German traveller – Felix and C'Ecille Mendelssohn Bartoldy made it a stop on their honeymoon excursion.¹⁴⁸ It is worth noting that, if one were to apply the principle of 'creative misunderstanding' as employed by Harold Bloom, Althans' elliptical design might well be a product of the type of technological 'matrix thinking' proposed by architectural historian Tom Peters.¹⁴⁹ Peters suggests that Althans' design benefited from the 'spread of knowledge at the time' regarding a wooden bridge system in the United States which simplified its construction through the use of standardization of parts.¹⁵⁰ The theorist also remarks that the purpose-built function of the Sayn Ironworks required the structure itself to withstand heavy loads that could be shifted by way of its cast-iron framework with the support of a truss chord. Peters proposes that although we might be able to imagine how Althans could be inspired by 'his observation of the way a carriage spring transfers bending in the middle into tension at the ends ... it is difficult to follow his highly personal leap of creative

¹⁴⁷ A very interesting discussion regarding Carl Ludwig Althans' Sayn foundry design and the inherent 'creative misunderstanding' of certain engineering principles found within that design may be found in Tom F. Peters, 'Technological Thought is Design's Operative Method,' *Perspecta*, Vol. 31, 2000, pp. 118-129.

¹⁴⁸ Georg Kohlmaier and Barna Von Sartory, *Houses of Glass: A Nineteenth-Century BuildingType*, (Cambridge: MIT Press, 1991), p. 84. See the 8 August 1837 diary entry in *The Mendelssohns on Honeymoon: The 1837 Diary of Felix and C'Ecille Mendolssohn Bartholdy*, ed. and trans. Peter Ward Jones, (Oxford: Clarendon Press, 1997), p. 76.

¹⁴⁹ Harold Bloom, *A Map of Misreading*, (New York: Oxford University Press, 1975).

¹⁵⁰ Peters, p. 127.

misunderstanding from the spring to the truss chord.’¹⁵¹ As well as transferring the concept of the carriage spring to an overhead dynamic system, Althans used the cannonballs manufactured at the foundry as ball bearings to aid the passage of the overhead contraption.¹⁵² Peters’ ‘creative misunderstanding’ hypothesis explains the brilliant transfer of a structural key from one material to another, from wood to iron; and, a transfer of a mechanical function, from overland carriage to overhead contraption, however, he did not suggest a link to a conceptual transference in regard to the elliptical shape of the truss form. At this point, I would like to make this connection and, in so doing, I wish to rehearse the type of intangible transference that Friedrich performed in these catachthonic images.

Althans attended the University at Göttingen where he studied mathematics with Carl Friedrich Gauss (1777-1855). He was Gauss’ student in 1809, when the mathematician published his work *Theoria motus corporum coelestium in sectionibus conicis Solem ambientium* in which he offered formulas to explain the elliptic orbits of celestial bodies. In designing the truss system of the Sayn foundry, Althans may have made an associative leap between the elliptical nature of celestial motion, terrestrial magnetism and the lozenge form used to describe the principle and, the inherent association of magnetism with iron; thus transferring the shape into the iron-casting building’s skeletal structure – an astonishing feat of transumption.¹⁵³

¹⁵¹ Peters, p. 126.

¹⁵² Peters, p. 126.

¹⁵³ Although it was two decades later that Karl Böttischer presented his theory of architectural tectonics (*Die Tektonik der Hellenen*, 1844), his reformulation of architectural aesthetics seem to have been influenced as much by Althans as his mentor

At the new Sayn foundry, cannon balls with which to counter Napoleon's artillery were made. The *Neujahrplakette* from 1818 included images of products from the Sayn foundry; a portrait medallion, a crucifix bearing Christ on a stand, cannon with cannon balls, bells – all floating under a wreath encompassing the phrase, *Glückauf* and the crossed-tool emblem of the miner (fig. 2.74). From the year 1817 onwards, objects produced at the Prussian foundries ranged from commemorative medallions and fine jewellery, to New Year's plaques and components for iron bridges. Adalbert von Weissenbach, author of an influential study on the ore-courses of the Erzgebirge which contains a charming lithograph of a miner who has unearthed a heart-shaped lump of ore [illustrated in the next chapter (fig. 3.38)], was the civil servant who oversaw a twenty-two year project at the Rothschönberg mine located between Meissen and Freiberg. When the opening to the main *Rothschoenberger* shaft was completed, Weissenbach directed his workers to cast in iron the large double-door hung in the vaulted stone opening (fig. 2.75).

8. Adits, Jewellery and Iron Filings

As one wanders through the mountains of Bohemia, Saxony, and the Harz, many of these masonry entries into the horizontal tunnels into mining works appear. Adits allowed miners direct access to their quarries and, with a gentle slope upwards into the tunnel, the lode was easier to haul out. Some of these openings

Schinkel. Böttinger wished to join *Werkform* with *Kunstform* in order to reflect recent industrial innovations yet preserve a sense of historical style. He understood that the material of iron would eventually adopt a form of symbolism in its own right.

have an elaborated façade such as the *Rothschoenberger Stolln*. These are regarded with the same veneration and constructed with comparable architectural features as the entries to ecclesiastical properties. Caspar David Friedrich's *The Churchyard* (1825-30), depicts the gate to a churchyard at Priesnitz, east of Dresden (fig. 2.76).¹⁵⁴ The painting falls into the category of the other works, such as *A Vault* and *The Hut in the Snow* that represent a threshold as a vertical register at an extremely shallow position in the foreground. Atop the bricks that form the gate in *The Churchyard*, grasses and wildflowers grow in the soil that has collected over the years. This lends to the impression that the walls of the gate have emerged from the ground rather than having been constructed on top of it. *The Entrance to the Plauener Churchyard* (1822) goes even farther with the motif of emergence as Friedrich sets the viewer below the gate, so that the wall rises above the pathway that the congregant must climb to attend services (fig. 2.77). The iron grave markers form dark silhouettes of remembrance on the other side of the opening. Friedrich painted not few of these stony, plumb thresholds during the 1820s and their substantial mineral structure paradoxically matches those permeable screens of snow-bound forest so eloquently described by Joseph Koerner in his work on Friedrich.

Perhaps the most famed product from the Berlin Iron foundry is not the massive Rothschoenberger doorway but a small piece of decorative ironwork. The Iron Cross was developed from an 1813 drawing by Karl Friedrich Schinkel and by the end of that year over five thousand were cast in iron as a response to

¹⁵⁴ Börsch-Supan/Jähnig, p. 410.

the *Gold gab ich für Eisen* call by King Friedrich Wilhelm III on 10 March.¹⁵⁵

During the second decade of the 19th century, Germans wore iron pendants, bracelets and necklaces, as substitutes for the gold jewellery donated to financially support the War of Liberation. Between the years 1813 and 1815, over 40,000 cast-iron objects were produced at the three Royal Prussian Ironworks foundries at Berlin, Gleiwitz in Silesia and Sayn foundry outside of Bendorf.¹⁵⁶

The Royal Prussian Ironworks factory in Berlin created the first iron jewellery. Popular amongst these were iron castings made from gems and cameos, objects analogous to fossils found in the earth.¹⁵⁷ Necklaces, bracelets, and earrings were fabricated by combining individual parts in repeated succession. Often designers created elaborate hairpins and tiaras for women's

¹⁵⁵ During the *An Mein Volk* (To my people) address, the King promised new liberties for the patriots of the cause; sadly his death and other circumstances made this a false promise. On the centenary of the address, the editor and writer, Theodor Wolff (1868-1943) recalled that the heroes of the liberation were instead labelled demagogues and the state reverted to one divided into class and castes (Theodor Wolff, *Berliner Tageblatt*, 10 March 1913, p. 125.).

¹⁵⁶ Elizabeth Schmuttermeyer, p.140. Casting was a speciality in Berlin, although some casts of the foundries were moved to locations in France during the war; see Anne Clifford, *Cut-steel and Berlin Iron Jewellery*, (Bath: 1971), p. 28.

¹⁵⁷ The casting from moulds taken from gems and cameos was an idea borrowed from Wedgwood ceramics. See Eva Schmidt, *Kleine Geschichte des Eisenkunstgusses*, (Dresden, 1976) and *Der preussische Eisenkunstguss: Technik, Geschichte, Werke, Künstler*, (Berlin, 1981), and Brigitte Stamm, *Blicke auf Berliner Eisen*, Berliner Schlösser, No. 6, (Berlin, 1979). Many of the Berlin casts were moved to France during Napoleon's occupation in 1806. These were used and kept in collections there as demonstrated in Vol. II, Part 1 of *Ferromnerie ancienne*, ed. Henry René d'Allemagne, (Rouen: J. Schémit, 1924), from the collection of Berlin Iron at the Musée le Secq des Tournelles in Rouen.

hair (fig. 2.78). The motifs for these components were leafy vines, floral wreaths, entwined stems and, less frequently, sea creatures. More often than not, the central segment of a necklace contained a cameo within an oblong frame; for example, a stag nestled on an elliptically shaped verdant patch or a butterfly enclosed within the arms of a lyre; small sculptures were derived from these designs (fig. 2.79 and 2.80). The iron tomb near Wöbbelin of Theodor Körner, a member of the Lützow Freikorps who was killed in Mecklenberg whilst fighting the French, is crowned by a lyre. The iron grave-marker designed by Gottlob Friedrich Thormeyer in 1814 was commemorated in an etching/engraving by Darnstedt, the same printmaker who translated Charpentier's drawings of mines into prints (fig. 2.81). The black metal was viewed as a melancholic evocation of the iron weapons with which Hermann the Teutonic Warrior fought the Roman army of Varus. No longer limited for use as decorative detail in architectural applications, iron was used to create small *objects d'art*. Beyond its use for cast objects fashioned to resemble constituents of nature, iron was a symbol - at once, an object of art and a political statement.

In Carl Gustav Carus' painting, *Woman on the Terrace* (1824), the figure models an iron hair-clasp and necklace (fig. 2.82). Likewise, the figure in Friedrich's *Woman before the Setting Sun* (fig. 4.34) wears an elaborate, iron tiara comb in her hair. The earrings she is wearing are likely to be iron as well. The dark one in her left ear is clearly silhouetted against the red sky; communicating a similar, striking visual effect to that of black iron jewellery against the white skin of a German woman. We cannot see if the woman is wearing a necklace, although it may be that she is given that Prussian Iron jewellery was usually manufactured as a *parure*. Two drawings from 1818, one

of which is the likely model-sketch for the woman in the painting, consist of two pairs of women with hair accoutrement - although we cannot see whether or not they wear a necklace. Neither of the hair combs in the drawings is as highly crafted as the iron ornament in the hair of the woman facing the setting sun. There is something else in this painting that suggests an iron presence; that is, the figure of the woman herself.

The woman stands on a piece of yellowish ground. In *Von den äusserlichen Kennzeichen der Fossilien* (*On the External Character of Minerals*, 1774), Abraham Gottlob Werner notes that, 'some iron ores are distinguished by being immediately attracted by the magnet, as magnetic ironstone, magnetic pyrite, and iron sand.'¹⁵⁸ Such iron, known as *mulmige Brauneisenerz* was mined in the caves of the Iberg Mountain near Osterode in the Harz. Large remnants of the activity were left strewn through mountain valleys. The woman stands among these bits of magnetized brown ore abandoned by subterranean workers. In front of her, there is a very light trapezoidal shape of flat terrain framed at its far edge by an indistinct carpet of dark grass. Directly under her feet and extending behind her to the picture's edge is another light rectangular patch of ground. If we view her from just above her head downwards, we would perceive her to be standing at what would be the centre of the second feature of described ground. Moving closer to the surface of the painting, one sees that each blade of grass in

¹⁵⁸ Abraham Gottlob Werner, *Von den äusserlichen Kennzeichen der Fossilien*, (Leipzig: Siegfried Lebrecht Crucius, 1774), English translation is from Abraham Gottlob Werner, *On the External Character of Minerals*, trans. Albert V. Carozzi, (Urbana: Univ. of Illinois Press, 1962), p. 115. Werner died in Dresden in 1817, allegedly from an illness complicated by his disquiet over the political situation in Saxony following the Napoleonic Wars.

the foreground is clearly expressed with an extraordinarily deliberate brushstroke. Every blade of grass appears to be placed in a straight row, including those growing to the left and right of the large rock features and these rows of grass extend to the outer edges of the painting (fig. 2.83). Even more strange is the fact that the blades of grass on her left and on her right seem to grow at an angle, leaning towards her. The same is true for those in front of her. Upon closer examination one discovers that every single blade of grass in the foreground leans in her direction at an angle relative to its proximity to her. It is important to state that they do not *bend* towards her; they are absolutely straight in their incline. Friedrich could have chosen to use a softer brush; instead he employed a stiff, inflexible paint brush with which to make the grasses. As already noted in the literature, the artist was the consummate technical painter. He chose his tools carefully. Furthermore, as evidenced in the literature the arrangements of botanical matter in his paintings may almost always be correlated with a preparatory drawing made from nature in one of Friedrich's sketchbooks. It is nearly impossible for a Friedrich scholar not to engage in the diversion of trying to match one painted feature with its expected source found in a drawing. This writer confesses to have been seduced by the game. That said; I can assure the reader that these blades of grass are entirely unique in Friedrich's oeuvre. In fact, based on close examination of the painting, it is quite likely that they were the last things to be fixed to the surface of the painting. The nearer the blades are to the woman, the more organized they are in relation to each other. They behave just as the filings of iron do in response to a magnet.

It should be no surprise to the reader that Goethe would include a passage on the properties of iron as they relate to colour in his *Zur Farbenlehre* (1810):

Iron is known to us as a peculiar substance, different from other substances: in its ordinary state we look upon it as a mere material remarkable only on account of its fitness for various uses and applications. How little, however, is necessary to do away with the comparative insignificance of this substance. A two-fold power is called forth, which, while it tends again to a state of union, and, as it were, seeks itself, acquires a kind of magical relation with its like, and propagates this double property, which is in fact but a principle of reunion, throughout bodies of the same kind. We here first observe the mere substance, iron; we see the division that takes place in it propagate itself and disappear, and again easily become re-excited. This, according to our mode of thinking, is a primordial phenomenon in immediate relation with its idea, and which acknowledges nothing earthly beyond it.¹⁵⁹

Goethe often cited a fairy tale told to him by his grandmother of a magnetic mountain in the ocean that attracted the metallic fasteners that held vessels together, ripping them out of the ship thus sinking the craft in the process. And in his *Die Lehrlinge du Sais*, Novalis begins his geological fairy-tale with this estimation of the phenomena:

Man pursues manifold paths. Whoever traces and compares them will see strange figures emerge, figures which seem to belong to that great cipher-writing which one perceives everywhere: on wings and eggshells, in clouds, snow, crystals, and rock formations, on freezing water, in the interior and exterior of mountains, plants, animals, and men, in the lights of the sky, on touched and rubbed discs of pitch and glass, in the iron filings around a magnet, and in the strange conjunctures of chance.¹⁶⁰

¹⁵⁹ Johann Wolfgang von Goethe, *Theory of Colours*, from the 1840 translation by Charles Lock Eastlake, (Cambridge: The MIT Press, 1985), pp. 294-5.

¹⁶⁰ Novalis, *Die Lehrlinge du Sais*, 1798-99, p. 1.

‘Mannigfache Wege gehen die Menschen. Wer sie verfolgt und vergleicht, wird wunderliche Figuren entstehen sehn; Figuren, die zu jener großen Chifferschrift zu gehören scheinen, die man überall, auf Flügeln, Eierschalen, in Wolken, im Schnee, in Kristallen und in Steinbildungen, auf gefrierenden Wassern, im Innern und Äußern der Gebirge, der Pflanzen, der Tiere, der Menschen, in den Lichtern des Himmels, auf berührten und gestrichenen Scheiben von Pech und Glas, in den Feilspänen um den Magnet her, und sonderbaren Konjunkturen des Zufalls, erblickt.’

Translation from John Neubauer, *Novalis*, (Boston: Twayne Publishers, 1980), p. 67.

The Romantic physicist, Johann Wilhelm Ritter, identified the visual figurations of magnetism created by iron filings and the *Klangfiguren* of sand induced into patterns according to the vibratory frequency of sound as revelations of the true alphabet of the *Das Buch der Natur*.¹⁶¹ Inspired by its magnetic properties, German Romantics artists and writers animate the weighty substance of iron through art. In *Woman Before the Setting Sun*, Friedrich visually energized the blades of grass so that the vegetable matter behaves as if it was attracted to a feminine pole. The impossibly magnetized blades of grass are a performative interpolation of object and subject; Friedrich a bricoleur at play imbuing vegetal matter with mineral properties. The image of the woman is essentially externalizing an inner, imaginary space. She stands erect like a conical mountain before the sun, generator of metals. The orant-poised arms released from the confines of her body call attention to the predilection to emanation and the vegetal filings disclose her attractive core. It is a radical image. Her inner contents invisible, veiled both by shadow and outer-shell; she is the embodiment of a mine.

9. The Subversion of Allegory

Although many in Caspar David Friedrich's Romantic circle despaired of Napoleon's conversion from republican liberator to despotic subjugator, they held out hope that the War of Liberation would serve as a catalyst for reform in

¹⁶¹ Walter D. Wetzels, *Johann Wilhelm Ritter: Physik im Wirkingsfeld der deutschen Romantik*, (Berlin: Walter de Gruyter, 1973), pp. 87-97.

the German States. The unique historical memory of the German people collected in tales, new geological theories, and artefacts from the subterranean world sustained the cultural imagination during a period of political upheaval. The revered image of the all-knowing miner working in the Golden Forge, ubiquitous in the literature of the age, was more than a metaphor for the artist or natural philosopher – he was symbol of social reform as well. Miners were allowed the unique privilege to protest. Just as their costuming had held them distinct from the rest of society, members of the mining trade had long benefited from special legal status. The existence of the long-lived mining festival, *Der Streittag*, the Day of Dissent represents this extraordinary standing in the typically repressive oligarchy.¹⁶² On this day, miners were permitted to freely express their dissatisfaction with their hours or pay. Many Germans believed that following the defeat of Napoleon, the German States would unite and a liberal government would form. It would herald the triumph of the Fichtean doctrine of Will; the necessity of Human Freedom. Yet, the eventual outcome following the defeat of Napoleon was bleak for those who worked culturally for emancipation from princely rule. New laws requiring conformity, and limiting the freedom of expression soon suppressed the voices of dissent in the German States. The medieval garb worn by the celebrated freedom fighters against the French was outlawed and those who supported the cause of reformation were labelled *demagogues*. Writers, artists, philosophers, and bureaucrats took sides in a cultural war that pitted German against German and men like Friedrich were overlooked for commissions and posts. Yet, messages of a resistant political nature were cleverly concealed in the work of the so-called *demagogues*.

¹⁶² Klaus Tenfelde, p. 382.

Unlike in the Saxon monarch's *Grünes Gewölbe*, the usual *wunderkammer* suspects are not present in Friedrich's *Vault*. The vault is empty, returned to the ancient state of a cavern, itself the jewel rather than the container for a gem. Apart from the fact that the vault may be metaphorically linked to a cavern, in its material state, it is a historic ruin. The vault's return to nature is signalled by the tree growing within. It is, essentially, a nostalgic image, though the emptiness beckons both the viewer forward and backward in time. Taken together, the paintings are an ironic evocation of the serene past. Whereas *The Hut* appears to renounce the potency of space through a picture of the abject; *A Vault* conveys calm through non-presence. In *Vorschule der Ästhetik*, the writer and Romantic theorist Jean Paul notes that men of understanding, those who have experienced the world after youth, tend towards irony, 'when the lyric life has passed through dramatic to epic and after experiencing both an inner and outer present, has become a fixed and tranquil past'.¹⁶³ At the age of fifty-three, Friedrich had experienced both the dramatic and the epic; and one could argue that his past was well 'fixed' within the accumulated drawings from his youth. Together with his memory, these drawings served the artist as a model-book for the mature paintings. Friedrich avoids the pitfalls of bitter irony apparent through undeveloped acumen that Jean Paul warns against. Jean Paul described irony as the appearance of gravity and, in *The Hut* and *A Vault*, Friedrich allows gravity without pictorially filling the voids within the paintings with dense matter. 'An idea is a concept,' wrote Friedrich Schlegel, 'perfected to the point of irony, an absolute synthesis of absolute antitheses, the continual self-creating interchange

¹⁶³ Jean Paul, *Vorschule der Ästhetik*, 'VIII. Programm, Über den epischen, dramatischen und lyrischen Humor,' no. 37, 1813.

of two conflicting thoughts. An ideal is at once idea and fact.’¹⁶⁴ Taken together, the pendants are just this, an ironic synthesis of two absolute antitheses. They become an ideal by virtue of their thing-ness.

The objects chosen by Friedrich – and one could argue as to whether they were consciously or intuitively chosen by the artist – are rooted, solidly, in the earth. With the exception of details within images collected from the technical books and journals, we have not seen the ‘thing’ in the centre of *The Hut in the Snow* in a work of art. Johann Alexander Thiele depicted smelting-works at a distance to be sure, but this terrible, decrepit entrance to a hole in the ground is a profound choice by Friedrich for a painting. Its rootedness to the ground appends its signification of profundity. The gravity communicated by the density of the void anchors the structure to the ground and non-material space below the mine shaft entry seems to be emerging from the surface. Like the occurrence of the *Quellungshöhle* within *Forest Interior by Moonlight*, the matter under the hut appears to be erupting onto the surface. The branches of the pollard willows, the diagonal extension on the right side of the aperture, and the awry door on the left add to the sense of gaseous eruption - nothingness coming out of somethingness. The hut’s state of *Verankerung* – *rootedness* as firm establishment – verifies its status as a historical artefact. The structure’s state of *Verwurzelung* – *rootedness* through development – dictates its allegorical, rather than symbolic position. Friedrich understood how ‘things’ grow out of nature organically or are human productions anchored to history through mechanical means.

¹⁶⁴ Excerpt from Fragment no. 121. Friedrich Schlegel, ‘Athenaeum Fragments,’ *Philosophical Fragments*, 1991, p. 33.

If allegory is the appropriation, rather than the renovation of imagery, by discovering the sources for Friedrich's representations of *A Vault* and *The Hut*, we may be able to validate their allegorical nature and perhaps offer relevant interpretations apart from those presented previously. Perhaps significantly, Friedrich resorted to a mode of Romantic allegorical representation described by Craig Owens in his essay, 'The Allegorical Impulse: Toward a Theory of Postmodernism,' in *October* (1980).¹⁶⁵ In this essay, Owens addresses the concept of the ruin in relationship to Robert Smithson's *Spiral Jetty*; he also proposes that the conceptual pairing of allegory and symbol is an unequal relationship, one that is problematical for allegory though not for the historicised function of it.

Allegory first emerged in response to a similar sense of estrangement from tradition; throughout its history it has functioned in the gap between a present and a past which, without allegorical reinterpretation, might have remained foreclosed. A conviction of the remoteness of the past, and a desire to redeem it for the present – these are its two most fundamental impulses.¹⁶⁶

Friedrich desired to redeem the present and the quality of remoteness is innate to his work; so are the *A Vault* and *The Hut* truly allegorical?

Both paintings exhibit fragmentary aspects of ruination and this is the quality that Walter Benjamin confirms as essentially allegorical.¹⁶⁷ Benjamin argued for a rehabilitation of allegory in his *The Origin of German Tragic Drama* and he looked to the work on myth of Friedrich Creuzer who had, according to Friedrich

¹⁶⁵ Craig Owens, 'The Allegorical Impulse: Toward a Theory of Postmodernism,' *October*, Vol. 12, 1980.

¹⁶⁶ Owens, p. 68.

¹⁶⁷ Benjamin, *The Origin of German Tragic Drama*, p. 178

Schlegel, 'restored myth to its old dignity with his sweeping intellect.'¹⁶⁸ It is Creuzer, not Benjamin, to whom we must turn to understand the nature of Friedrich's allegory. For Creuzer, mythology discloses historical development by the progression of a series of moments which transforms the instantaneous totality of the symbol that is immediate and involuntary into allegory; the narrative dimension which is discursive and intentional.¹⁶⁹ On this basis, I would argue that Friedrich's choice of the mine-hut as a 'thing' within the painting is intentional. The pairing of *A Vault* with *The Hut* is an Schlegelian ironic act that subtly contrasts an idea with a fact within each painting. *The Hut* synthesizes the concept of interiority with a physical representation of it and *The Vault* synthesizes the notion of ruin with the representation of a one. The 'absolute synthesis of absolute antitheses' exists in the non-evident pairing of potency with disintegration; and, the fact that these energetic poles are interchangeable between the two paintings is, ultimately, the meaning of the union of the two images. The fusion of the *para*-pendants is the visualization of not-other which conceals the divine in plain sight. Friedrich has renovated myth through allegory. The artist enables the symbol within his allegory to, in the words of Creuzer,

measure the immeasurable, and to squeeze the divine into the narrow space of the human form ... Here the ineffable prevails that, seeking expression, will by the infinite power of its essence, ultimately explode the terrestrial form that is too weak a vessel ...

¹⁶⁸ *Kritische Friedrich Schlegel Ausgabe*, vol. I, (Paderborn: Verlag Ferdinand Schöningh, 1958), p. 569.

¹⁶⁹ Georg Friedrich Creuzer, *Symbolik und Mythologie der alten Völker, besonders der Griechen*, vol. I, (Leipzig: Heyer and Leske, [Leipzig and Darmstadt: 1810-12], 1819), pp. 80-83 and p. 340.

Herewith, the clarity of looking is itself destroyed, and only speechless wondering remains.¹⁷⁰

Often, thinkers, seduced by the nature of opposition, overlook those points that exist on the pathways between the two opposing centres. The result is an emphasis on analysis that is dependent on dramatic contrast rather than on small relationships that subtly tease out deeper meaning through differentiation. The dialectic nature of opposites was used by Henrik Steffens, a pivotal thinker of the Romantic age (who is a lesser known figure today), to define the nature of caricature. Henrik Steffens published *Caricaturen des Heiligsten* in 1819 as a case-study modelled examination of the three main classes of society; the peasant, the middle class, and members of nobility as they exist in theoretical opposition to one another and within the three categories. Although it is an essentially political work, what is intriguing for the subject at hand is that Steffens proposes that opposing caricatures must be pictured together thus by placing them on equal footing, the two poles will annihilate their differences and display the reality of the ideal.¹⁷¹ Steffens posits that there are two possible ways to accomplish this; firstly, by representing individuals and secondly, through abstract, evocative description.¹⁷² For Steffens, the obliteration caused by the simultaneous picturing of opposites, Hegel's 'negative unity,' is a creative rather than destructive means of expression of the ideal.¹⁷³ The first 'abstractions'

¹⁷⁰ Creuzer, *Symbolik*, I, p. 73, from Moshe Barasch, *Theories of Art: From Wincklemann to Baudelaire*, (New York NYU Press, 1990), p. 235.

¹⁷¹ Henrik Steffens, *Caricaturen des Heiligsten*, vol. 1, (Leipzig, 1819), pp. 169-70.

¹⁷² Steffens, *Caricaturen*, p. 170.

¹⁷³ I remind the reader of Hegel's theory of appearance as mentioned in the introduction of this thesis: Georg Wilhelm Friedrich Hegel, 'Section Two: Appearance,' in *Hegel's Science of Logic*, 1812-1816, trans. A.V. Miller, (London: Allen & Unwin, 1969),

paired together and examined by Steffens are the comfortable (*Bequeme*) and the restless (*Unruhige*). Although, it might not be clear to the reader at this early juncture in the thesis, the pairing of *A Vault* with *The Hut in the Snow* function as mythologized caricatures of a natural, quiet cave and an artificial, dynamic mine. Taken together, they perform as an expression of the ideation of interiority and the oblitative nature of subjectivity in the work of Caspar David Friedrich.

Friedrich painted the entry to the mineshaft, *The Hut*, as derelict; it appears barren. The tree at the bottom of the picture frame acts as a *fingerzeig* pointing down instead of outward. The directional device used by countless German landscape artists to set the viewer on his or her way upon a forest path has become an indicator of the political atmosphere. The stumps of the trees impersonate the dead and model the belief that reunion with the earth begins with internment. Friedrich would rather we not pass by this hole. The murky air, frigid climate, and the amputated trunks of giant oaks at the entrance function as visual barriers however, paradoxically, also coerce us into the dark breach in the loam. Curiosity may draw the viewer inside, past remnants of the defeated German spirit. Friedrich urges the viewer to risk returning to the forge – the dangerous unstable, sulphurous world of below, the realm of Chance. For the Romantic, the capacity to be inquisitive, to be aware of risks, yet to ask what is inside – an ability to enrich the cavity of our psyche – this is the lode. Friedrich

§1076, 'Both properties and matters are the same *content-determinations*; only in the former case they are moments, that is, they are reflected into their negative unity as into a substrate distinct from them, namely, *thinghood*, and in the latter case they are self-subsistent, different determinations, each of which is reflected into its own unity-with-self. These matters are now further determined as an independent subsistence; but they are also together in a thing

rejects cultural entropy through this sign of abjection – another ironic trope. *The Hut in the Snow* is not a hut; it is *The Entrance to the Mine*.

III. The Cave as Vault

In this chapter, I will investigate the contextual correspondences between works of Caspar David Friedrich; cave culture, and related artistic productions. Subsequent to this line of enquiry, I will then explore thematic and structural similarities with other, apparently related (i.e., *Ossian* and the *Edda*) and unrelated, philosophical, technological, and cultural productions. These secondary topics range from Greek myth to the poetry of Hölderlin; from Idealist philosophy to the Romantic reception of light in popular culture; from the Romantic celebration of Lucretius to Oken's theory of polyhedral earth structures. Following from these thematized excursions, I will situate Friedrich's interest in subterranea within the representational practices and aesthetic debates formed at the intersections between art, medicine and science.

This chapter aims to identify particular examples of recess in the oeuvre of Friedrich and I shall concentrate part of the discussion of interiority on a set of sepias from 1805/06. However; much of the argument will centre on the *Harzhöhle* sepia of 1835 and the *Vault* painting, distinguishing both as models for a category of the subterranean world. I will conclude the chapter by arguing that there is a theme of subterranea in the work of Friedrich, which might be interpreted in allegorical terms not yet acknowledged in the literature on the artist.

I will start our discussion on caves with the most evident example of the cavernesque in Friedrich's oeuvre, his sepia of 1826, *Skeletons in the Cave*. I argue that there exists a previously unknown source for this image in the form of two etchings found within a popular cultural publication. Further, I hope to augment my argument that both the production and reception of these and other under-researched prints were the result of a dialogue with other spheres of practice and that these images played a constitutive as well as illustrative role in the development of Friedrich's subterranean typology.

1. Skeletons in the Cave

In his sepia, *Skeletons in the Cave* (1826), Caspar David Friedrich has reduced a pair of humans to a mineral state (fig. 3.1). Two skeletons lay on their backs on the floor of a cave. The walls, floor, and ceiling of the cavern serve as a framing device for the image. It is a compacted space; the roof of the cavern is not far above the skulls of the twosome and the walls are close. Similarly to the position dictated by the distinct compositional strategy of a shallow pictorial depth used by Friedrich in *A Vault*, the observer is situated in the darkened space close to the picture plane, hidden within the hollow of the subterranean depths, more concealed than are the skeletal objects of the artist's attention. The emphasis in this composition is on the contour of the edges that divide the dark quarter from the lighter exterior. The blackness in these spaces performs as a framework – an apparatus not a symbol. In Baroque painting, darkness forces objects out of the surface, from symbolic shadow into symbolic radiance; in Friedrich's work, dark tones are rich with texture and pictorial amplitude thus acquiring structural rather than symbolic meaning. Partially masked by the ceiling of the cavity, the greater

part of a full moon hovers just above the head of the figure on the right. The artist used a compass to scribe the shape of the circular orb and the puncture in the paper where the needle of the tool rested is still visible on the surface of the paper. Patchy, vertical rivulets form a broken wall of water that falls across the opening to the cave. The presence of water qualifies it as a 'live' cave.¹ Stone rubble populates the floor of the underground chamber and the round shape of the boulders (technically referred to as *die Ausfüllung*) reflects the cranial structure of the skeletal remains; thus, the rock and bones read as equivalent to one another. The view out of the natural tomb is very different from the view into the grotto which houses the sarcophagus of Arminius in *Graves of the Ancient Heroes*. In Friedrich's *Graves of the Ancient Heroes*, *Harzhöhle* and in his *Skeletons*, the artist has situated the entry and the exit in the centre of the works, thus confirming their position as the primary matter of his thought, in this instance. The darkest tones in *Harzhöhle* are reserved for the void of the entrance; and the lighter tones in *Skeletons* are ceded to the sky that encompasses the entire view through the cave's outlet. His two late chthonic sepias offer us a way in and a way out of the cave.

There is a historical narrative that informed Friedrich's choice of two skeletal occupants for his *Skeletons in the Cave*. The *Rosenmüllerhöhle* discovered by Johann Ludwig Wunder in 1790 and entered three years later by its namesake, Johann Christian Rosenmüller, was legendary because of the two human skeletons found on its steep floor. The cavern is located just north of

¹ Joe N. Jennings, 'Cave and Karst Terminology,' in *Australian Karst Index 1985*, ed. P. G. Matthews, p. 13. This volume supplies a fine glossary of terms used by speleologists in Australia, Canada, France, Germany, Italy, Switzerland, United Kingdom, and the United States.

Muggendorf in the Fränkische Schweiz of Northern Bavaria and is entered via a vertical shaft that drops sixteen metres, straight down to the natural tomb of the two unfortunate souls. The cave is comprised, more or less, of a single enormous chamber. The mouth of the cave was known for centuries as it was located on a corridor along a natural link between settlements, yet, had not been entered because of the dauntingly precipitous drop directly inside of the entry. The story of the discovery of the human remains circulated throughout popular periodicals, journals, and coffee houses. It is a seductively beautiful, though dangerous cave as testified to by the two fossilized humans; so, naturally, adventure-seekers added the site to their itinerary. When later visitors discovered two human skeletons on top of the debris at the foot of the pit, it was easy to see how they arrived there; but it was not possible to find out if they were the victims of a crime, an accident or if they were ritually buried in the pit; therefore, their identity has remained a mystery. This is, of course, part of their appeal to public curiosity. In 1830, concerned that gentrified visitors, unaccustomed to strenuous climbs might fall to their death, the authorities constructed a tunnel into the side of the hill so that access to the cave would be less treacherous for those on tour (fig. 3.2). Given the extent of mining in the area, it was not difficult to find a surveyor to calculate the best position of the adit tunnel into the *Rosenmüllerhöhle*, an engineer to design the interior vaulting, and labourers habituated to working underground to excavate the horizontal channel into the hillside. The mining industry depended upon persons besides those sound fellows who could use a shovel, pick, and hammer (fig. 3.3).

Skeletons in the Cave, complete with accurate depictions of speleothems, is not unlike images of cave interiors in the popular period texts devoted to

spelunking.² The notional foundation for Friedrich's *Skeletons* may have a source above and beyond the cultural infatuation with dead men in caves. In fact, I shall demonstrate that it is derived directly from a specific image. As will be discussed, aquatint prints illustrating the interior and exterior of caves were often printed in a brown ink in order to mimic the hue of sepia drawings, and following the invention of the lithographic process in Germany in the late eighteenth century, a similar practise ensued in the preparation of pigments for printing topographical views. In addition to this crossover of tinting properties in the two-dimensional arts, I should mention that this colour of brown also was used in the patinas made of linseed oil and burgundy resin or lead monoxide in order to stain the Prussian iron jewellery cast at the Gleiwitz foundry.³ The subject of Prussian ironworks and their jewellery was addressed in the previous chapter; for now, I simply would like to establish, through the brownish hue, another link between various popular art forms in the early nineteenth century.

When the entomologist, Johann Friedrich Esper (1742-1810) began to publish information about the local caves in German-speaking lands, the interest of tourists and the scientific community in casual spelunking grew.⁴ Esper reported

² G. W. Moore in *National Speleological Society News*, 2 June 1952 suggests that 'in an effort to relieve the ambiguities of 'formation', the term speleothem is proposed ... It is suggested that the word be used as a general term for secondary mineral deposits formed from water in caves, such as stalactites, helictites, rimstone terraces.' This term was adopted internationally; the German term is *das Gebilde*

³ *Cast Iron from Central Europe 1800-1850*, ed. Elisabeth Schluttermeier, (New York: The Bard Center, 1994), p. 140.

⁴ Johann Christoph Esper, *Description des zoolithes, nouvellement découvertes ... dans le Margraviat de Bareith ... traduite de l'Allemand par J. F. Isenflamm; ... avec planches*, (Nuremberg, 1774). Esper received his doctorate at Erlangen. His thesis was entitled, *De varietatibus specierum in naturae productis* (1781). Because of his interest

that 'the enormous mass of animal earth, the prodigious number of teeth, jaws, and other bones, and the heavy grouping of the stalactites, render the place a fit temple for the God of Death.'⁵ This appealed to the newly developed Gothic taste of his readers and, to personages such as William Buckland, the eminent English geologist and palaeontologist. Buckland visited the caves of Germany after having received a copy of Esper's account of them. Buckland was fanatical about cave bones as evidenced in a letter he wrote to a friend who reported the local discovery of bones casually over dinner: 'Pray oblige me with a line to say whether there really has or has not been a Discovery of a New Cave full of Bones in your neighbourhood ... I should gladly have come into Glamorganshire at this time, had I not been under the necessity of preparing immediately my account of the German Caves I have visited in the past summer for my Book which is forthcoming.'⁶ William Buckland's *Reliquiae Diluvianae* (1823) contains

in comparative investigation, the natural history collection at Erlangen was world-class. His most important work was a series of pamphlets entitled *Die Schmetterlinge in Abbildungen nach Natur mit Beschreibungen* published from 1776-1807. They include over 430 hand-coloured engravings of the most superb quality [BL: 461.g.8, 1777-94].

⁵ John Mason Good, *The Book of Nature*, (Hartford: Belknap and Hamersley, 1837) p. 195. Good (1764-1827), now largely forgotten, wrote about Nature of the Material World, the Animate World, and the Nature of the Mind in a compendium of learning from the author's perspective as a medical doctor and scholar of languages. He translated Lucretius into English, *The Nature of Things* in (1805-1807).

⁶ From a letter dated 24 December 1822 written by Buckland to Lady Mary Lucy Cole of Penrice Castle near Swansea. Quoted in F. J. North, 'The Red Lady, the Deluge and William Buckland,' *Annual Science*, vol. 5, no. 2, (1942), p. 102. The letter concerned the find of bones in a geological formation at Crawley Rocks by a Miss Jane Talbot as quoted in J. A. Douglas and J. M. Edmonds, 'William Buckland, F.R.S. (1784-1856) and an Oxford Geological Lecture, 1823,' *Notes and Records of the Royal Society of London*, vol. 30, no. 2 (Jan., 1976), p. 147.

lithographs made from his drawings of German caves that he explored at different times during the ten years previous to its publication.⁷ The illustrations within *Reliquiae Diluvianae* provide excellent examples of pictorial cross-sectioning of the earth's crust in order to expose a nearly accurate rendition of the interior spaces within it; therefore, the book provided the arm-chair explorer an impossible-vision of caves. Plate 17, *Vertical Section of the Cavern at Gailenreuth in Franconia* reveals the various caverns of the subterranean complex in terms of their general shape and specific depth (fig. 3.4). These transverse views through earth differed from the aquatints found in the Rosenmüller's text on caves and his images of skeletons in them that Buckland references.⁸ As we shall see, the Rosenmüller prints share a similar 'tunnel-vision' quality with the elevation drawings for contrived garden-grottoes designed by Romantic architects. The amateur speleologist adopted an *interiorized* picturesque style for the images, whereas Buckland attempted through his images, to situate the cavities within the earth's strata in a way that revealed their relationship to the surface. In *Skeletons*, Friedrich circumvented the surface altogether and enabled the horizontal path of his audience's vision through the cavern to rise, paradoxically, to the heavens; almost as if the cavern itself was suspended in thin air – a grim, though likely not intended, adaptation

⁷ William Buckland, *Reliquiae Diluvianae; or Observations on the organic remains, contained in caves, fissures and diluvial gravel, and on other geological phenomena, attesting the action of an universal deluge*, (London: John Murray, 1823).

⁸ Buckland, p. 99.

of the astronomers' cave on the floating island of Laputa in Part III of Jonathan Swift's *Gulliver's Travels* (1726).⁹

An image recording the experience of looking out from a recessed space in order to view the moon made an earlier appearance in Friedrich's oeuvre in two versions of *Two Men Contemplating the Moon* (1819/1830) and *Man and Woman Contemplating the Moon* (1824). In fact, the men and woman are looking *down* at the moon (fig. 3.5, 3.6 and 3.7). The overall effect of the Dresden version (1819) is cavern-esque and this is in part due to the steep descent of the hillside and the use of a gloomy brown palette. All three paintings display a downwardly directed triangular shape within the picture frame. The triangle is formed on one side by the sloping ground on which the two moon-watchers stand, on a second side by the diagonal growth of a large oak tree, and on the third side by the scraggly canopy of a fir tree joined with feral branches of the oak which appear to grow together at the top edge of the picture. In the 1819 version, the two wanderers in the costume of the 'demagogue,' stare at the new

⁹ According to Swift, the *Flandona Gagnole*, the astronomers' cave, is located one hundred yards beneath the surface of fictional Laputa and contained a lode-stone which causes the island to rise and fall at certain distances above the earth. The boundaries of verticality were decided by minerals located deep in the earth below that act upon the magnet in the cave above. Swift's satirical take on Enlightenment science is well-documented. Jonathan Swift, *Travels into Several Remote Nations of the World by Lemuel Gulliver*, (London: C. Cook, 1724), pp. 155-158; German translation, *Des Capitains Lemuel Gulliver Reisen im unterschiedliche entfernte und unbekandte Länder*, (Hamburg: Thomas von Wierings Erben and Leipzig: Philip Herteln, 1727-1728). Goethe displayed an accomplished knowledge of English literature and counted Swift amongst his favourite authors; see James Boyd, *Goethe's Knowledge of English Literature*, (Oxford: Clarendon Press, 1932), Chapter IV. As noted by Goethe in his diary from Sesenheim, Herder introduced Goethe to his own favourite authors –Johann Georg Hamann (1730-1788) and Jonathan Swift.

moon and a bright star through the opening in the wood.¹⁰ The roots of the ancient oak are stretching above ground-level towards the pair; whilst the copious roots of the mechanically-cut stump of a smaller tree, located directly below the young man on the left, are visibly reaching towards the depths. In *Skeletons*, the two undressed occupants of the cave are not looking at the moon and the 'reach' is limited to the vertical growth of the speleothemic formations. The outlook from the recessed space of the cave is less an artless view through nature's vegetal or mineral scaffolding than it is an artificial one contrived in the mind of the artist.

Prints containing the cross-sections of human-made objects for explanatory purposes have a long tradition extending from architectural views made during the early Renaissance, to intelligence reports concerning the layout of enemy naval vessels and engraved specifications for mechanical inventions that describe the internal workings of wondrous machines (fig. 3.8, fig 3.9). Certainly, extensions of this convention are the primitive views of human embryology where full-grown children are drawn within the shape of a glass jar rather than within an accurate depiction of the uterus. These were made obsolete by the sophisticated anatomical views found within Vesalius' *De Humanis Corporis*

¹⁰ The term *demagogue* was used to describe individuals who advocated reforms in the German states. There was a well-known sartorial dimension to the movement.

An excellent study of the subject was written by Eva Maria Schneider, *Herkunft und Verbreitungsformen der „Deutschen Nationaltracht der Befreiungskriege“ als Ausdruck politischer Gesinnung*, PhD diss., (Bonn: Rheinischen Friedrich-Wilhelms-Universität, 2002).

When the artist Peter Cornelius and Karl Förster were visiting his atelier 18 April 1820, Friedrich made an ironic reference to the demagogic machinations of the pair in *Two Men Contemplating the Moon*. Karl Förster reported that Friedrich said, 'Die machen demagogische Umtriebe,' in Sigrid Hinz, 1974, p. 211.

Fabrica, although primitive renderings remained extant.¹¹ However, transverse sections of the earth, except as generalized schematic images of the earth, idealized views such as those found in Agricola's *De re metallica*, or the more fanciful cross-section of a mountain colliery in *Viridarium chymicum* (1624) were extremely rare (fig. 3.10, 3.11). It is particularly unusual for a fine artist to utilize a cross-sectional visual trope to structure an image of an object below the surface. There are rare instances of the application of such a strategy in European Art. The disclosure of Christ's body within his tomb is one of the few examples; as those readers familiar with Hans Holbein's *Der Leichnam Christi im Grabe* (1521) in the collection of the Kunstmuseum Basel will have already noted (fig. 3.12). Certainly, there are examples in popular prints that function to communicate a sequence of events, or perspectives on the same event; however, I have yet to discover more than a very few prints that cut away the earth to show its interior in such a spatially accurate fashion before Buckland's *Reliquiae Diluvianae*. An exception to this rule, are the contemporaneous illustrations, not of caves, but of mine shafts as we have seen. Developments in cave exploration and mining technology seem to have been responsible for the visual innovation. The graphicacy of this impossible vision was the result of the dramatic extension of knowledge concerning the underworld in the late eighteenth century; this

¹¹ K. B. Roberts and J. D. W. Tomlinson, *The Fabric of the Body: European Traditions of Anatomical Illustration*, (Oxford/New York: Clarendon Press, 1992). As Choulant notes in his study on anatomical illustration, the prohibition on human dissection prevented the publication or drawing of accurate human structures – during the fourteenth century when the ban was lifted for medical purposes, artists were still not allowed to undertake the practice (Ludwig Choulant, *Geschichte und Bibliographie der Anatomischen Abbildung nach ihrer beziehung auf Anatomische Wissenschaft und Bildende Kunst*, (Leipzig: Rudolph Weigel, 1852), pp. 26-29).

amplification of understanding engendered a new way of seeing. The cavernous cut-away was the bathetic twin to the panorama. Seeing *through* everything was the conceptual cousin to seeing *all-round* everything.

The German lithographer and draughtsman George Johann Scharf (1788-1860) was responsible for the execution of most of the illustrations of Buckland's *Reliquiae Diluvianae*.¹² It might be that Scharf drew the bizarre drawing that Buckland used in his public lectures in order to engage his audience in the rather dry subject of comparative anatomy. The drawing depicted an invented scene of resurrected cave bears frightening their palaeontological inquisitors within a transverse interior bubble. The famed lithographer, Charles Hullmandel printed twelve of the twenty-seven Buckland stones at his shop in London. Hullmandel is a historically significant printer who was led to the medium by his dissatisfaction with the results of a project that another printer had executed for him. He developed into a highly accomplished lithographer, known particularly for his topographical folios as well as being employed by British naturalists to illustrate their volumes with well-drawn and beautifully-printed images of natural phenomenon. As the title indicates, *Reliquiae Diluvianae; or Observations on the organic remains, contained in caves, fissures and diluvial gravel, and on other geological phenomena, attesting the action of an universal deluge* supported Buckland's theoretical form of biblical creationism. He was

¹² Philip Carpenter, *Microcosm, a Grand Display of the Wonders of Nature*, 1827, printed by Charles Hullmandel, featured microscopic views of various insects and a surprisingly, visually sumptuous sample of iron ore. The display was contrived and constructed by the optician Carpenter in the spirit of Robert Hooke's *Micrographia* (1665).

able to locate evidence of the Deluge through gravel sediment found in caves that he designated as diluvial deposits. From unique formations on the surface of the earth, he theorized that the shape of terrain documented the movement of the biblical flood. Buckland was appointed to a newly-established readership in Mineralogy at Oxford in 1813; despite the established religious conservatism of the institution. His volume on caves was as popular in Germany as it was in Great Britain and, perhaps it was more appreciated.¹³ Buckland observed that the bones in German caves were often locked into position by stalagmitic calcite – a mineral form of entombment.¹⁴

Buckland's volume contains a lithograph showing the location of the group of caves in the Muggendorf region (fig. 3.13). It also contains individual views of the Baumannshöhle and Scharzfeld caves in the Harz; and the Gailenreuth cavern near the Rosenmüllerhöhle in Franconia (fig. 3.14, 3.15). The dark tones framing the well-lighted corpus in Friedrich's *Skeletons in the Cave* may read similarly to the passage from the dark chamber to the brighter one in his *Vault*, however, it is only the shape of the chamber and the use of the transverse view of an interior that is similar to the Buckland images which, conversely, tend to frame a dark interior with a lighter area that represents the surrounding earth. *Skeletons in the Cave*, therefore, has more of a tonal correspondence with the Rosenmüller aquatints which will be discussed later in this chapter in its deep

¹³ This is documented in Walther von Knebel, *Höhlenkunde mit Berücksichtigung der Karstphänomene*, (Braunschweig: Druck und Verlag von Friedrich Vieweg und Sohn, 1906), pp. 2-3.

¹⁴ Douglas and Edmonds, 1976, p. 145. The modern terminology for the phenomenon of calcite deposits forming over any object, rock or bone, on the cave floor is *flowstone* (*die Sinterdecke*).

contrastiveness. There are two images of a cave printed in a popular text; however, that are startling when compared to Friedrich's *Skeletons in the Cave*. The Adelsberger Grotte, which will be discussed at length later in the chapter, was a subject in volume ten of Friedrich Justin Bertuch's Viennese edition of *Bilderbuch zum Nutzen und Vergnügen der Jugend*, the popular encyclopaedia for children published in 220 pamphlet instalments from 1801 until 1815. The entire fourteen years of printed material was collected into twenty-two hardbound volumes following its last instalment in 1816. Bertuch began publishing the first edition of the encyclopaedia in Weimar in 1790 and his publishing house continued to do so in Weimar until 1830. Bertuch is known in the Friedrich literature as the publisher of *Journal des Luxus und der Moden* in which several reviews of Friedrich's work were printed.¹⁵ The pages of text in the *Bilderbuch* along with one-thousand and one-hundred splendid engravings were printed in Vienna by Anton Pichler who completed volumes one through ten and Bernhard Philipp Bauer who printed volumes eleven through twenty-two. The copperplate engravings were drawn by Jacob Xavier Schmuzer or his son Johann Jacob Schmuzer, among others and, were hand-coloured; some more expertly than others. The *Bilderbuch* text was written in both French and German, and subjects covered were numerous and diverse. The topics ranged from natural history to cultural history; including, but not limited to botany, medicine, cultural customs and rituals, architecture, geography, technology, and

¹⁵ *Journal des Luxus und der Moden* was published in Weimar by Friedrich Justin Bertuch and Georg Melchior Kraus from 1786-1827. Friedrich's work was reviewed in *JLM* issues for eleven years: 1803-1804, 1806-1814 and finally in 1816.

the wonders of the world. It is within this final category in volume ten published in 1807 that two engravings of the Adelsberger Grotte appeared (fig. 3.16, 3.17).

The Bertuch *Adelsberger Grotte - Figure 1* might not be identical to Friedrich's *Skeletons in the Cave*; nevertheless, the visual correspondences are remarkable. The general outline of the 'negative space' as it relates to the 'positive' surface zone of the cave wall and ceiling in each image is essentially the same. The serrated profile of the aperture in both pictures is located at an equivalent position in relation to the edges of the picture plane. Friedrich has improved upon the Bertuch composition by interrupting the 'negative' space with three vertical columns (*die Säule*, variant speleothem formed when a stalactite roof formation meets a stalagmite floor projection); two of the three are grouped together at the right and the remaining single column stands solidly like the trunk of a tree far to the left of centre of the opening. These pillars perform not only as rising features that enliven a sedate horizontal composition, but also as perspectival guides to deepen a flattened interior; the pair on the right meets the roof near the opening and at a distance from the lone column which is much closer to our position of spectatorship. Additionally, by applying lighter valued washes and less detail to the distant set of columns and darker washes with greater detail to the one nearby, Friedrich employs atmospheric perspective to create a sense of depth in the shallow space. A low, triangular feature emerging from the cavern floor and tucked against the lower left side of the picture frame of the Bertuch *Adelsberger Grotte - Figure 1* displays a series of horizontal registers of non-descript marks incised upon it (fig. 3.18, detail).¹⁶ In the corresponding corner of *Skeletons*, an analogous shape with the same type of

¹⁶ The triangular shape emerging from a cave floor is termed *der Kegelberg*.

level marking is present (fig. 3.19, detail). Close inspection of both images reveals yet more similitude in shape and outer-contour, as examples of terra rossa, stegamites, moonmilk, and pendulites are featured.¹⁷ At first glance, the second Bertuch engraving, *Adelsberger Grotte - Figure 2*, does not appear to be as closely correlated to *Skeletons* as its companion; that is, until the viewer mentally reverses the engraving. Because of its pointy nature, a result of the tooth edge drapery formation (*die Sägezahnsinter*), the shape of the dark aperture in *Figure 2* is nearer to that same jagged character of the opening in Friedrich's sepia than the dark field in *Figure 1*. Friedrich's *Skeletons in the Cave* is roughly the mirror image of *Adelsberger Grotte - Figure 2*. Taken together, the slope of the cavern's ground, the complete columns that join the ceiling to the floor, and the diagonal aspect of the wall at the left edge of the second Bertuch engraving form a visual echo to *Skeletons*. The most adroit reverberation within the pair of Bertuch engravings and the Friedrich sepia is the circular shape exposed within the spaces that read as unplumbed darkness and illuminated night sky, respectively. Friedrich has transmuted the flame of the flambeaux in the Bertuch engravings into a ghostly full moon.

¹⁷ There is a nomenclature that classifies the multitudes of shapes formed below the surface of the earth. These forms are defined by their particular mineral composition and its crystal building habits; giving rise to two broad classes of speleothems, dripstone and flowstone forms and erratic forms. During the German Romantic Age many of these categories were established. *Terra rossa*: Reddish residual clay soil developed on limestone; *Stegamite (die Sintergebilde)*: A speleothem projecting upwards from a cave floor in the form of a calcite ridge; *Pendulite (der Deckenzapfen)*: A kind of stalactite which has been partly submerged in water. The formerly wet part is covered with Dog tooth spar – it has a rounded appearance; *Moonmilk (die Bergmilch or Mondmilch)*: A bulbous mass of soft, white, moist, plastic speleothem consisting of calcite, and hydrated minerals.

What does this tell us about Friedrich's strategies for compositional arrangement? In the past, his sepias have appeared to scholars to be derivations of graphite drawings that he created before the ink painting. There are some of these sepias which we have no source drawing for, and it has always been assumed that the drawing was lost. Could it be that some of these sepias without a cognate preparatory drawing were simply derived from images Friedrich found elsewhere than in his sketchbooks; for instance, in the encyclopaedia brought to his home by one of the neighbourhood children? There are various anecdotes about Friedrich and children including one that tells of his reading to local children from a picture-book.¹⁸ Other engraved or etched images of the Adelsberger Grotte expose entirely different views of its interior; it is no coincidence that there are so many similarities with the Bertuch in Friedrich's sepia. The exchange of darkness for luminosity in their respective negative and positives spaces is a notable dissimilarity between the images. The most striking difference between the Bertuch *Adelsberger Grotte* and Friedrich's *Skeletons*, however, are the bony occupants of Friedrich's cave.

There is yet another print that employs the same fundamental composition as Friedrich's *Skeletons* and the Bertuch prints. A mixture of etching and mezzotint is used to represent a drawing by J. G. Köppel entitled, *Die sogenannte*

¹⁸ Wilhelm von Kügelgen writes in his memoirs of the time he watched Friedrich playing with children in a brook. They stacked stones into a tower and then pummelled it until it collapsed, much to everyone's delight. Jens Christian Jensen, *Caspar David Friedrich: Leben und Werk*, (Köln: DuMont, 1974), p. 8. Gotthilf Heinrich von Schubert reported on the comings and goings of neighbourhood children at Friedrich's studio, see Hinz, pp. 221-22.

Wachskammer in der Rosenmüllers höhle (fig. 3.20).¹⁹ We can not be certain which cave, the Adelsberger or Rosenmüller, serves as the source for the image in the Bertuch, Köppel, or Friedrich works; however, it is interesting that there is a human presence in Friedrich's work and not the others – except in the background story of the Rosenmüllerhöhle.

E.T.A. Hoffmann's *Mines of Falun* first published in the first volume of his *Serapionbrüder*, concludes with the discovery of the remains of a man deep within the earth, 'when it chanced that some miners who were making a connection between two shafts found ... buried in vitriolated water, the body of a young miner.'²⁰ He had the same appearance as when he was buried in the mine fifty years before. G. H. Schubert's *Ansichten von der Nachtseite der Naturwissenschaften* was apparently the source for the tale.²¹ The Schubert anecdote was based on a real event when, in 1719, a miner known as Fet Mats Israelsson was found in a petrified state within the tunnel system at the Falun Mine (*Falu Gruva*) in Sweden where he had disappeared forty-two years before (fig. 3.21). The botanist, Carl Linnaeus examined the remains of the young man

¹⁹ This print is in the archives of the *Geschichte den Höhlen Forschung* in Franken collected by Hermann Schaaf, co-author with Brigitte Kaulich, *Kleiner Führer zu den Höhlen um Muggendorf*, (Nürnberg: Naturhistorische Gesellschaft, 1993).

²⁰ E.T.A. Hoffmann, 'The Mines of Falun,' *The Best Tales of Hoffmann*, trans. Alexander Ewing, (New York: Dover, 1967), p. 306.

²¹ Schubert, *Ansichten*, p. 215. It should be noted, however, that Gabriel Jars reported these circumstances at Falun in the third volume of his popular book on mine engineering. The second volume figures significantly in our later discussion of mine architecture. [Gabriel Jars, *Metallurgische Reisen zur Untersuchung und Beobachtung der vornehmsten Eisen-, Stahl-, Blech-, und Steinkohlen- werke in Deutschland, Schweden, Norwegen, England, und Schottland, vom Jahr 1757 bis 1769*, trans. D.C.A. Gerhard, vol. 3, (Berlin: C.F. Himbürg, 1777-1785), p. 34.]

which were on display on the Great Copper Mountain (*Stora Koppaberget*) and determined that he was coated with vitriol, thus preserved only for the time remaining before the chemical evaporated. Up until the eighteenth-century vitriol was believed to be an alchemical agent for the transmutation of iron into copper; in fact the German name for vitriol is *Kupferwasser*. The reaction was noted by Paracelsus in *Economy of Minerals* and he asserted that this supported his theory that other minerals could be transmuted as well.²² Vitriol is sometimes responsible for the luminescent lustre of blue and green stalactitic masses found in caves. The mine at Falun contained a great deal of the substance. A series of monumental cave-ins during the seventeenth-century culminated in the formation of its famed entrance, the Great Pit at Falun when, 'on St. John's Day of the year 1678, came the terrible landslip and subsidence which formed our present enormous main shaft, laying waste to the whole works, as they were then.'²³ Similarly to Novalis, Tieck, and numerous others, Hoffmann elevates the role of the miner above that of a labourer to that of a supernatural being, capable of profound understanding and insight. In the end, however, Hoffmann returns the miner to the human state of corporeality.

²² Vladimir Karpenko and John A. Norris, 'Vitriol in the History of Chemistry,' *Chemical Listy* 96, pp. 997 -1005, 2002. The authors cite Paracelsus, from *Economy of Minerals*, in *The Hermetic and Alchemical Writings of Paracelsus*, trans. A. E. Waite, Vol. 1, Chap. XVI, 1992, p. 104.

²³ Hoffmann, p. 300.

2. Ossian, the Grünes Gewölbe and the Cave Bear

The artist's original title for the painting of the Convent entrance was *Ein Gewölbe*. The modern translation from the German *Gewölbe* is flexible; it may translate as 'vaulting,' or 'cellar'. The bars added to the outside window suggest to some that it should be translated as 'prison'.²⁴ German dictionaries citing Romantic period usage, however, indicate the most likely meaning is 'vault,' in the general sense of a chamber rather than a specific architectural element, or 'meer' or the large area of an underground mine, and, I believe a fresh reading of the two pendants will support one, or the other translation. In the leaflet announcement (*Blätter für literarische Unterhaltung*) distributed for the 1827 exhibition, the anonymous author states that the two paintings are related, in spirit, to an episode in the *Works of Ossian*.²⁵ These tales, translated into German beginning in 1764, were still believed at the time to be original works of a third-century Gaelic bard, when in fact they were penned by their alleged

²⁴ Hinrich Sieveking, *Fuseli to Menzel: Drawings and Watercolors in the Age of Goethe*, Cambridge, 1998, p. 80. The reference in Sieveking, 1998, (p.80, ff. 7) is to Börsch-Supan and Jahnig's classic work on CDF, *Caspar David Friedrich*, 1972.

²⁵ Helmut Börsch-Supan and Jahnig, 1972, p. 111. 'Seine beiden kleineren Stücke, die verfallene Hütte unter dem Schnee, und das dunkle Gewölbe, sind in demselben Geist gedichtet und mahnen an ähnliche kurze Episoden in Ossians Gesängen.' Although no specific work is cited there are a few passages in *Poetry of nature, comprising, a selection of the most sublime and beautiful apostrophes, histories, songs, elegies, &c. from the works of the Caledonian bards*, [edited by Mary Potter, (London, 1789), pp. 144 and 163] that referenced the cave of Creyla in the Ossian verse that may be appropriate citations to evoke an Ossian space. From page 163: 'whither do the stars retire from thy presence and where is the cave in which they hide their trembling beauty?' For our discussion of Friedrich, the passages referencing the cave as a potential repository are of interest.

discoverer, James MacPherson (1736-1796).²⁶ The work was so popular in Great Britain and in Germany that large mural projects were devoted to the stories and, writers from Coleridge to Schiller and Goethe made references to Ossian in their work.²⁷ Goethe's *Werther* declared that Ossian had supplanted Homer in his heart.²⁸ In the second half of *Werther*, Ossian dominates in spirit supplanting Homer's supremacy in the first half, literally. The melodramatic Werther fantasizes a journey in which he roams over wild lands and hears plaintive cries reverberating from deep caverns below. At the end of the daydream, Werther finds the bard wandering amongst his ancestors' tombs and releases Ossian from a living death by penetrating the mourner with his sword. Charlotte, Werther's beloved, asks him to read to her from his own translation of

²⁶ Jean Paul notes that although the Christian Wilhelm Ahlwardt translation of 1811 was widely praised for its textual accuracy, the 1808 translation by Friedrich Wilhelm Jung had 'lightness, fidelity and harmony' and had not received fair commendation. 'So sehr *Ahlwardts* Übersetzung durch den Fund des reinern Textes vorwiegen kann: so scheint es mir doch, daß der Leichtigkeit und Treue und den Wohllauten der *Jungschen* viel zu wenig lobende Gerechtigkeit widerfahren sei.' [Jean Paul, *Vorschule der Ästhetik*, 'V. Programm. Über die romantische Dichtkunst: Wesen der romantischen Dichtkunst - Verschiedenheiten der südlichen und der nordischen, no. 22, 1813].

²⁷ Henry Okun, 'Ossian in Painting,' *Journal of the Warburg and Courtauld Institutes*, vol. 30, 1967, pp.327-356. Drawings are in evidence of less ambitious schemes. The most recent study on the Ossian phenomenon in Germany is Wolf Gerhard Schmidt's *Homer des Nordens und Mutter der Romantik: James Mazphersons Ossian und seine Rezeption in der deutschsprachigen Literatur*, (Berlin: Walter de Gruyter, 2003) and *Kommentierte Neuausgabe wichtiger Texte zur deutschen Rezeption*, ed. Wolf Gerhard Schmidt and Howard Gaskill, vol. IV, (Berlin and New York: de Gruyter, 2003). *Ossian and Ossianism: Subcultures and Subversions, 1750-1850*, ed. Dafydd Moore, (London: Routledge, 2004).

²⁸ Johann Wolfgang von Goethe, *Die Leiden des Jungen Werthers*, 1775, Book II, para. 69.

the tales that she has stashed away in her desk drawer.²⁹ His eyes fill with tears and an unsympathetic reader understands why this early, overtly sentimental novel embarrassed the mature Goethe. Ossian appears not a bearded demi-god in Schiller's essay on the Sublime (*Über das Erhabene*, 1801); instead the writer likens the bard to Scotland's untamed cataracts and misty mountains.³⁰ In 1802, Ludwig Gotthard Kosegarten translated the likely literary source of Schiller's topographico-mythicized bard, Thomas Garnett's *Observations on a tour through the Highlands and part of the Western Isles of Scotland* (1800) complete with supplemental commentary on Ossian.³¹ The settings of Kosegarten's popular tale of a Scottish woman's adventures in the Highlands, *Adele Cameron* (1803), are derived from Garnett's descriptions of the 'scenery, which is wild and horrid,' and 'exceedingly wild and romantic.'³² *Adele Cameron* was the third of a cycle of novels, *romantische Dichtungen*, by Kosegarten exploring the theme

²⁹ Ibid, Book I, para. 46. In paragraph 76, he equates his love for Charlotte to his love for Ossian.

³⁰ 'Wer bestaunt nicht lieber den wunderbaren Kampf zwischen Fruchtbarkeit und Zerstörung in Siciliens Fluren, weidet sein Auge nicht lieber an Schottlands wilden Katarakten und Nebelgebirgen, Ossians großer Natur, als daß er in dem schnurgerechten Holland den sauren Sieg der Geduld über das trotzigste der Elemente bewundert?' Friedrich Schiller, *Über das Erhabene*, 1801.

³¹ Thomas Garnett, *Reise durch die Schottischen Hochlande und einen Theil der Hebriden. Aus dem Englische übersetzt*, Translated by Ludwig Theobul Kosegarten, 2 vols., (Lübeck and Leipzig: Bohn, 1802).

³² Thomas Garnett, *Observations on a tour through the Highlands and part of the Western Isles of Scotland*, vol. 2, (London, 1800), pp. 173-174. Kosegarten's *Adele Cameron* was so popular that it was reprinted three times, in 1805, 1807 and 1818. The publisher was Heinrich Gerlach and the publishing house was located in Friedrich's Dresden.

of love.³³ All three contain a strong undercurrent of erotic mysticism, which appealed to the reader of the period. All told, Ossian seems to have an aphrodisiacal effect on the Germans. Although he was concerned the scenes of mortal combat in the Ossian tales would frighten her, Kosegarten presented his future wife Katharina with a volume.³⁴ We are left to wonder whether she found Ossian as erotically stimulating as her husband.

Johann Gottfried Herder responded to the Ossian phenomenon in *Auszug aus einem Briefwechsel über Ossian und die Lieder alter Völker* (Extract from a correspondence about Ossian and the Songs of Ancient Peoples, 1773).³⁵ He believed that the prose of Ossian offered a model of authentic existence, far from those tenets of French formalism which advocated an artificial relationship with Nature. According to Herder, the whole structure of the Ossian tales was a form of organic conception of culture. He postulated that the songs of Ossian were essentially musical; therefore, directly expressed the 'inner' voice that could only be truly articulated through music, poetry, and experienced by individuals in the unconscious and unadulterated world of dreams.³⁶ Herder so valued the tales of

³³ Kosegarten's romantic novels were three: *Ida von Plessen* (1800), *Bianca del Giglio* (1801), and *Adele Cameron*.

³⁴ Kosegarten, *Hainings Briefe an Emma*, 1791, vol., p. 59.

³⁵ Johann Gottfried Herder, *Auszug aus einem Briefwechsel über Ossian und die Lieder alter Völker. Von deutscher Art und Kunst. Einige fliegende Blätter*, (Hamburg: Bode, 1773).

³⁶ Johann Brändle, *Das Problem der Innerlichkeit – Hamann, Herder, Goethe*, (Bern: Francke, 1950), pp. 60-2; in this publication based on his dissertation, Brändle addresses the concept of inwardness, *Innerlichkeit*, in association with the reception of Ossian in late eighteenth century Germany through the work of Hamann and Herder. As the earlier chapter concludes with Friedrich Creuzer's theory of myth; it is important to note that although Herder attributed the generation of myth to the limitations of primitive

Ossian that he included two extracts from the seventh book of *Temora* in his *Volkslieder* (1778-79). His polarization of Homer and Ossian that was elaborated on by Goethe in *Werther* and pounced upon by Madame de Staël in her *De la littérature considérée das ses rapports avec les institutions sociales* (1800), became one of the foundations upon which scholars such as Wölfflin would argue for the inherent subjective and objective temperaments found on either side of the Alps-European divide.³⁷

Nicolai Abraham Abildgaard (1743-1809), one of Caspar David Friedrich's tutors during his tenure at the Copenhagen Academy, painted several figurative scenes based on the Ossian tales. These images, usually more Roman in attitude than Teutonic, were nevertheless immensely expressive in manner. Friedrich's acquaintance and fellow Pomeranian painter, Philipp Otto Runge was commissioned by the publisher Friedrich Perthes (1772-1843) to create a set of drawings to illustrate the new Ossian translation (1806) by Count Friedrich Leopold von Stolberg (1750-1819). Unfortunately, the drawings were found to be unacceptable by the recently converted Catholic as he felt that they were too pantheistic and that Runge was attempting to usurp the primacy of his text – so the publisher rejected them.³⁸ The artist invented an emblematic programme for

language in the expression of concepts (thus, its origin in music); Creuzer (and Friedrich Schlegel) proposed myth to be a form of symbolic expression – a language of its own – not a failure of expression.

³⁷ Anne-Louise-Germaine Necker, Baroness de Staël-Holstein, *De la littérature considérée das ses rapports avec les institutions sociales*, 2 vols., 1800.

³⁸ Susanne Strasser-Klotz, *Runge und Ossian: Kunst, Literatur, Farbenlehre*, Dissertation, Universität Regensburg, 2005, p. 21. The publisher Friedrich Perthes approached Philip Otto Runge to provide illustrations for *Die Gedichte von Ossian ... Nach dem Englischen des Herrn Macpherson*, trans. by Friedrich Leopold von Stolberg,

his Ossian project with assignments of celestial attributes to the primary heroes in the tales. Runge naturalized his Ossian figure emphasizing Northern attributes of the landscape in relation to the pictured hero (fig. 3.22). In a letter to Ludwig Tieck in 1805, Runge described his depiction of Ossian as sitting on a pinnacle of rock bearing the sword of Fingal.³⁹ Runge modelled Ossian on the idea of space as an ‘abyss of eternal love,’ and as he articulated in his letter to Tieck, he intended the hero to meld with the hill on which he was seated beneath the northern star. He also depicted a fir tree in a mirrored relationship to the harp in his grasp and a torrent of water bursting through the stone beneath him in a nod to Neptunist geological theory. Runge wanted the viewer to understand that Ossian is one with the earth and sky; the mediator between the worlds of above and below.⁴⁰

(Hamburg, 1806.) The artist continued, independently, to pursue publication of the incredibly ambitious project, but to no avail. Runge placed his figures in Northern landscapes and emphasized their Teutonic origins (Okun, pp. 342-345).

³⁹ Strasser-Klotz, p. 71. ‘Ossian sitzt auf der höchsten Felsenspitze mit der Harfe, zusammengesetzt aus dem Schwert Fingal’s, Bogen und Horn; das Horn ist die untere Seite und es brauet ein Strom heraus, der sich in eine Schlucht stürzen kann, so wie ein Fels vor Ossian’s Fußtritt herab. Ueber ihm der Nordstern, und da er mit der Rechten zum Schilde greift, so steht er mit Schild und Harfe wie zwischen Himmel und Erde; er hat die jugendliche Jagd verlassen und sein Stern erstet ihm nur in der Hoffnung.’

⁴⁰ Strasser-Klotz, p. 127. Runge equated the hero Oskar with the moon who is swallowed by the love of his father Ossian the Earth. His grandfather, Fingal, is the Sun. The entire sentence in the original German reads, ‘Wenn die Sonne angesehen wird wie das Wort des Wesens, des Ruhms, der bleiben wird, wenn auch die Sonne vergeht, so ist es belebend gerichtet zum unendlichen Raum, und in sofern erscheint hier die Sonne wie der Bote, oder wie der Mond in einer höheren Potenz, der einst wieder verschlungen wird in den Abgrund der ewigen Liebe.’ See also Daniel Runge, *Hinterlassene Schriften von Philipp Otto Runge*, I, (Hamburg, 1840), p. 262.

The tales of Ossian are interspersed with episodes which take place in primeval landscapes or underground chambers and, given the absence of the figure in both of Friedrich's pendants; one may assume the relationship to Ossian alluded to in the 1827 exhibition commentary is a conceptual rather than literal one; thus Friedrich was less interested in the Ossianic hero and more with the spatial realm he occupies. This concept of the existence of an *Ossianic* character of space is supported by Kurt Weber who remarks that both the poet Jean Paul and the painter Caspar David Friedrich have a *tertium comparationis* in the Celtic Bard. This is manifest in their adoption of both abundance and emptiness in 'die Verklärung der Welt und deren Verachtung.'⁴¹ The painter achieves this oscillation through his depiction of landscape and the writer, in his description of landscape. In his chapter on the character of Romantic poetry in *Vorschule der Ästhetik*, Jean Paul makes the following observation of landscape in relationship to Ossian:

The *Old Norse*, bordering more on the sublime, found in the shadowy realm of its dark and awesome natural climate, in its nights and on its mountains, a limitless world of spirits for spectral Orcus into which the narrow material world dissolved and sank away. Ossian belongs there with his evening and night pieces, in which the heavenly starry nebulae of the past hover and shimmer over the thick night-fog of the present. Only in the past does Ossian find future and eternity.⁴²

⁴¹ Kurt Weber, 'Jean Pauls Landschaften,' in *Jahrbuch der Jean Paul Gesellschaft*, 31 (1996), p. 58.

⁴² Jean Paul, *Vorschule der Ästhetik*, 'Programme V,' no. 22, 1813. 'Die altnordische, mehr ans Erhabne grenzende fand im Schattenreiche ihrer klimatischen verfinsterten Schauernatur, in ihren Nächten und auf ihren Gebirgen zum Gespensterorkus eine grenzenlose Geisterwelt, worin die enge Sinnenwelt zerfloß und versank; dahin gehört Ossian mit seinen Abend- und Nachtstücken, in welchen die himmlischen Nebelsterne

In Friedrich's *In Memory of the Riesengebirge* (1835), a painting that will be considered in the next chapter, one may sense the 'narrow material world' sinking into the abyss (fig. 4.9). Perhaps, the passage that best describes a certain type of landscape that is specifically appropriate for our discussion of Caspar David Friedrich's depiction of the 'world below' is in Jean Paul's introduction to *Das Kampaner Tal* (1797), a short story which takes place largely in a cave. Here, Jean Paul has declared to a friend to whom he has promised a portrait of nature from the valley through which he is travelling that, 'indeed such a valley deserves that the mining and Sabbath-lamp of truth should be lowered into the suffocating air of the grave, in place of our self, to see whether that self can breathe at such a depth.'⁴³

There were many reviews of Friedrich's work written in his day which referenced his Ossianic disposition. In the *Journal des Luxus und Moden* of 1808, Christian August Semler referred to Friedrich's conjured *Welt* as a Christian-Ossian realm and an anonymous reviewer in 1816 recounted sensing the spirit of the ballads permeating the mists in a now-lost painting.⁴⁴ Carl August Böttiger, in a not quite catachrestic geographical mis-assignment of

der Vergangenheit über dem dicken Nachtnebel der Gegenwart stehen und blinken; und nur in der Vergangenheit findet er Zukunft und Ewigkeit.'

⁴³ 'Wahrlich ein solches Tal ist es wert, daß man da in die Stickluft des Grabes das Gruben- und Sabbatslicht der Wahrheit statt seines Ichs hinunterläßt, um zu sehen, ob das Ich in einer solchen Tiefe noch atme.' Jean Paul, *Das Kampaner Tal*, 1797, p. 3.

⁴⁴ Christian August Semler, 'Klinsky's allegorische Zimmerverzierungen und die Friedrichs Landschaften in Dresden,' *Journal des Luxus und Moden*, 1808, pp. 179-84. Anonymous D, 'Über den Landschaftmaler Friedrich in Dresden,' *Journal des Luxus und Moden*, Nov. 1816, pp. 736-40.

Friedrich's elegy to the German landscape, declared that another 'now-lost' painting depicted the high mountains of Scotland and the clouds of Ossian.⁴⁵ Perhaps the most reported instance of Ossian-Friedrich allusion in the scholarship is the Brentano-Arnim fictional repartee between groups of exhibition attendees before Friedrich's *Monk at Sea* where a man states he feels the presence of the harp plucking Ossian. This statement was misheard by a passer-by as 'ocean' and, as Joseph Leo Koerner points out, a 'ceaseless babel of misreadings' ensues.⁴⁶ Ironically, these so-called 'Ossianic realms of space,' are usually perceived by the reviewers as an abstracted emanation of spirit rather than place. The two painters who perhaps best visibilised the Ossianic realm of space – Philipp Otto Runge with his very literal and figurative approach and Caspar David Friedrich in a circumlocutory manner – occupied much of the same real space in their early lives; Pomerania, Copenhagen, and Dresden.

After his nearly four year residence in Copenhagen, Caspar David Friedrich moved to Dresden in Saxony. By all accounts, Dresden during the Romantic Age was a very pleasant place to be. Johann Caspar Riesbeck remarked that there was an 'evenness' in the people there – they were well-kempt, had an easy manner, a taste for the beauty of nature and a warm attachment for their native

⁴⁵ Carl August Böttiger, 'Kunstnachrichten an Dresden,' *Artistisches Notizenblatt*, 1822, p. 5.

⁴⁶ Koerner, pp. 210-17. It is one of the few illuminating (and profound) commentaries on this widely referenced essay in the *Berliner Abendblätter*, 13 October 1810. The other is William Vaughan's 'Landscape and the *Irony of Nature*,' in *The Romantic Spirit in German Art 1790-1990*, (London: Thames and Hudson, 1994), pp. 185-87. The ubiquitous re-printing of the essay without critique in the some of the other works on Friedrich is representative of the tendency to transform archetypal Romantic irony into oft-quoted stereotype.

country and deep interest in everything attached to it, 'the words *my country*, were pronounced with energy.'⁴⁷ He further remarked that 'even the middling classes love art; reading is universal ... not just romance or plays but good books of history, morality, philosophy and other important subjects.'⁴⁸ Dresden resident, Henrik Steffens noted *Naturphilosophie* was the great theme of scientific men and was garnering universal attention from the entire populace. Friedrich's drawing of a reader in thoughtful reverie with a book in hand is indicative of this cultural preoccupation with expanding one's knowledge (fig. 3.23). Saxons of every social and economic class attended excellent schools, both urban and rural. An English travel writer remarks that quality education extended into the remote mining districts in the Erzgebirge Mountains in Saxony; where, 'tin, iron, and lead, are the metals most frequently found: silver and gold formerly abounded, but are now rarely met with.'⁴⁹ Wilhelm von Humboldt's socio-cultural concept of *Bildung* which shaped the educational system in Prussia influenced Saxony – with the exception that although the Saxons accepted that education should include intellectual and aesthetic subjects, they still held to the inclusion of practical training in most circumstances. As well as an image of good-mannered, ordinary Saxons pouring over volumes that reported recent scientific theories of geology, advances in speculative physics, and groundbreaking philosophical conjectures; we also read in the travelogues of folk that have an attachment to coffee in the extreme, prefer to live simply and take

⁴⁷ Riesbeck, vol. 2, pp. 162-170.

⁴⁸ Riesbeck, vol. 2, p. 162.

⁴⁹ Edmund Spencer, *Sketches of Germany and the Germans, with a Glance at Poland, Hungary, and Switzerland, in 1834, 1835, and 1836*, (London: Whittaker & Co., 1836), p. 281.

pleasure in game amusements.⁵⁰ In a compilation of decades of reports on Dresden published in 1828, an author described fir tables edged with copper, pewter pots that looked as though they were fabricated the day before, and remarkable public gardens. In these gardens there was at all times much smoking ('pipes almost always forms the countenance of the males'), women knitting, and choruses of boys on Sundays roaming the parks under the watchful eye of pious men who kept them well-fed and tidily dressed (fig. 3.24).⁵¹ Great amusement was taken in the sport of shooting the popin jay, an object with great wings decked with brilliant feathers and gold ribbon, positioned atop a tall pole that 'stands in the neighbourhood of most public places.' Men would take turns shooting an iron-bolt with a musket-like crossbow with the purpose of dislodging the head of this fantastical bird.⁵² Games of nine-pin were set up throughout the parks. Each of the travelogue writers, mentioned in the introduction to this thesis, speak of the easy-going, pleasant, and fun-loving nature of the Saxons in Dresden. There are numerous descriptions of one place in particular that occupies the interest of all writers – the *Grünes Gewölbe* (Green Vault) of the Saxon princes.

The centuries-long interest of Germans in natural history is not disputed. One would be especially hard-pressed to argue against this statement after setting foot in the *Grünes Gewölbe*. Historiographers of natural history associate the cabinet of curiosities and allied collections with Imperial projects throughout Europe; however, in Germany the link with underground human intervention is

⁵⁰ Riesbeck, vol. 2, pp. 173.

⁵¹ Gordon, *Travels in Germany*, 1828, p. 68.

⁵² Gordon, *Travels in Germany*, 1828, p. 69.

particularly pronounced. As its guest book attests, Caspar David Friedrich was a frequent visitor to the *Grünes Gewölbe* collection of the Saxon monarchs in Dresden. The Green Vault, recently reopened at its original location in the Dresden Royal Palace, was founded in 1723 by Augustus the Strong in homage to the rich underworld of the German landscape. Its floors were paved with Saxon marble. The sixteenth-century Elector Augustus began the collection, however, it was Augustus the Strong who consolidated it and gave it didactic purpose. One of the ten rooms housed a comprehensive inventory of metallurgy, including a variety of metal ores, standard weights, furnaces, and a working model of a mine.⁵³ Descriptions of the collection of fossils, minerals, cameos and intaglios, and eccentric metalworks are in travelogues of the 18th and early 19th centuries. Johann Georg Keysler describes how the boots and shoes of visitors were meticulously cleaned and dusted before entry into the environment of the hallowed *wunderkammer*.⁵⁴ The cabinet of curiosities as a European cultural phenomenon is well considered in recent historical studies, however, it must be noted that the Dresden collection is exceptionally localised in its configuration. The Green Vault was envisioned by Persian interior designers as a cavern of wonders, a grotto of delights that would enchant a visitor, whilst boasting the status of temple to the interior of the Saxon landscape. It contained remarkable objects including seventeenth-century gem encrusted ceremonial pick-axes and a miner's satchel belonging to the Elector Johann Georg II that

⁵³ Johann Georg Keysler, *Reise durch Teütschland, Böhmen, Ungarn, die Schweitz, Italien und Lothringen, worin der Züstand und das merckwurdigste dieser Lander beschrieben und ... der Mechanik, Mahler-Bauer und Bildhauer-Kunst ... und Alterthümer erläutert wird*, vol. IV, (Hanover, 1751), p. 243.

⁵⁴ Keysler, p. 268.

were carried by mining officials during state-sponsored pageants (fig. 3.25 and 3.26). As did their presence at show caves, the visit of a prince to a mine triggered a celebration. The benefactor of the Green Vault, Augustus the Strong, held an enormous wedding banquet in 1719, attended by 1190 miners at the Plauensche Grund at Dresden.⁵⁵ This celebratory event was as much, a tribute to the wealth in the womb of the German landscape, as a commemoration of the filial treasure soon to occupy the womb of his daughter-in-law, Maria Josepha von Österreich. Nearly one-hundred years later, Caspar David Friedrich included a drawing of himself, in a letter to the artist Louise Seidler, sketching before an opening in the rock, ‘beside the roaring waterfall in the Plauen’scher Grund’ (fig. 3.27).⁵⁶ Friedrich contrasts himself against the schism in the stone, filling the cavity in a rather suggestive way considering the letter is addressed to a young woman.⁵⁷

The opulent *Willkommn der Saigerhütte Grünthal* (1625) confirms the place of the Saiger smelting works at Grünthal as the most important industry in the Erzgebirge region of Saxony (fig. 3.28). The silver extracted from the mines was

⁵⁵ Anne Noltze-Winkelmann, in the pamphlet that accompanied the 1977 facsimile edition of G.E. Rost, *Trachten der Berg- und Hüttenleute im Königreiche Sachsen*, Freiberg, 1831, (Frankfurt am Main: Verlag Wolfgang Weidlich, 1977), p. 8. The banquet was held to celebrate the marriage of the Crown Prince on 26 September 1719.

⁵⁶ 2 May 1814, letter from C.D. Friedrich to Louise Seidler, Dresden Kupferstichkabinett.

⁵⁷ The text of the letter itself is wonderfully suggestive, ‘und ich bekam von all dem Kochen und Braten das Sausen und Brausen Lust zu geniessen. Wenn doch im Augenblicke die Felsen zu Kuchen und Braten geworder wären und das Wasser zu Wein; es wäre gewisse eine neue Höhle entstanden...’ A fine discussion of this drawing as well as the English translation of the letter upon which the image is drawn may be found in William Vaughan, *Friedrich*, (London: Phaidon, 2004), pp. 135-6.

expertly separated from black copper at the Saigerhütte and was used by porcelain painters a century later in an oxidized silver compound with which to create a fine calligraphic black line that imitated the black of ironworks. These objects attest to the cultural preoccupation with subterranea and the cult-like significance of the mining industry. The multi-roomed vault also contained raw fragments of geological memory in the form of fossils and minerals, some of which were assembled into sculptural recollections of historical or mythological past; all of which express an awareness of the passage of geological as well as historical time.

German caves and mines had long been a destination for touring monarchs and dignitaries. In 1516, the Herzog Ulrich von Württemberg visited the Sontheimer cave and initiated the practise of cave illuminations, when an immense quantity of candles would be lighted, robbing the atmosphere of precious oxygen thus enhancing the physiological effects of the magical event through a mild asphyxiation.⁵⁸ Goethe entered a show cave near Scharzfeld in the Harz Mountains in 1784 by way of a staircase built for the arrival of König Georg II sixty years earlier.⁵⁹ The poet-scientist was interested in examining the bones of what locals asserted was a unicorn - Goethe eventually identified the bones as belonging to a brown bear. A revered denizen of the German forest as evidenced 'from the great number of words which the German language has to

⁵⁸ The cave is located in the Schwabian Jura. There are no specific claims in regard to asphyxiation in the show caves I will mention in this paper; however, the phenomenon is not unheard of in the history of spelunking. Hans Binder, Anke Luz, and Hans M. Luz, *Schauhöhlen in Deutschland*, (Ulm, 1993).

⁵⁹ Wolfgang Franz Xaver von Kobell, *Charakteristik der Mineralien*, (Nürnberg, 1830-31), p. 282. Roland H. Winklehöfer, *Durch Höhlen der Sächsischen Schweiz*, 1998.

signify bears,' the mammal had disappeared from the Harz at the beginning of the eighteenth century.⁶⁰

Caves throughout Germany used to contain numerous bones of the *Ursus spelaeus Rosenmüller*, a bear who lived over one hundred-thousand years ago and was nearly thirty percent larger than the recently expelled brown bear. The Swiss geologist, Jean André de Luc visited the region around Muggendorf in Bavaria known for its many caverns, and planned to stop at one when, he 'went first to one of those which contained the bones of bears, or rather, which *had* contained them; for such quantities have been carried away, that it is difficult now to find even a few remaining fragments.'⁶¹ The wholesale pilfering of bones was likely due to the fact that the entomologist Johann Friedrich Esper published an extremely popular volume on natural history that included a drawing of the cave in 1774. Johann Friedrich Esper, along with William Buckland and Johann Christian Rosenmüller, were well-known during their lifetimes for their pioneering works in the study of prehistory and cave

⁶⁰ Michel Ange Bernard de Mangourit, *Voyage en Hanovre fait dans les années 1803 et 1804 contenant la description de ce pays sous ses rapports politique, religieux, agricole, commercial ...* (Paris, 1805), p. 88.

⁶¹ Jean André de Luc, *Geological Travels in Some Parts of France, Switzerland, and Germany*, trans. unknown, vol. 1, (London: Rivington, 1813), p. 194. Jean André de Luc wrote *Recherches sur les modifications de l'atmosphère*, (Geneva, 1772), a book on physics of which a quarter was devoted to experiments with the mercurial thermometer. He performed a thorough survey of the regions of Holland, Westphalia and lower Saxony and the Elbe, Weser, and Rhine river valleys. His findings were published as *Lettres sur l'histoire physique de la terre ... à Blumenbach, renfermant de nouvelles preuves géologiques et historiques de la mission divine de Moyse*, ed. J. A. Émery, 8 vol., (Paris, 1798). On page 84 of this volume, the editor notes that Cuvier concurs with De Luc that the bears entered the caves for shelter although he disagreed with his belief that they were polar bears.

phenomenon – all three are still acknowledged today for their publications on subterranea.⁶² Esper's book, *Ausführliche Nachricht von neuentdeckten Zoolithen* (*Detailed Account of Newly Discovered Zoolites*, 1774), was used as a guide by the great natural scientists, such as Blumenbach, Cuvier, and DeLuc, for the nearly sixty years.⁶³ They came to the caves and left with specimens to study and to enlarge the collections of patrons. Amateurs took bones as souvenirs and the superstitious, who still believed they were the relics of unicorns, kept them for pseudo-pharmacological purposes. Caves were sites for natural scientists to observe geological features and fossil records as well as for nobles to create spectacles and tourists to pursue adventure. Georges Cuvier (1769-1832) was amongst the first to report that the bones found in the caves of Germany were different from those of mammals that 'live on the ground that conceals them.'⁶⁴ He used the term *stalactite* to describe the mineral encrustation that encased the

⁶² In *Höhlenkunde mit Berücksichtigung der Karstphänomene*, (Braunschweig: Druck und Verlag von Friedrich Vieweg und Sohn, 1906), pp. 2-3, Walther von Knebel notes 'Die namen Esper, Rosenmüller, Buckland, werden unvergessen bleiben; denn sie waren es, welche zuerst in weiten Kreisen auf die Höhlen und deren Bedeutung fuer die Kenntniss des prähistorischen Menschen sowie der ehemaligen Tierwelt hinweisen.'

⁶³ See Arnim Geus, 'Einführung,' the introduction to a facsimile reprint of *Ausführliche Nachricht von neuentdeckten Zoolithen unbekannter vierfüssiger Thiere. Nach der Originalausgabe von Georg Wolfgang Knorr*, (Wiesbaden: Pressler, 1978).

⁶⁴ Georges Cuvier, *Recherches sur les ossements fossiles de quadrupedes*, (Paris, 1812; later editions in 1821 and 1825); and *Discours sur les revolutions de la surface du globe*, (Paris, 1825) were works that reported his theories on fossils. Translation from the French is taken from Georges Cuvier, 'Extract from a work on the species of quadrupeds of which bones have been found in the interior of the earth (1799),' in *Georges Cuvier, Fossils, Bones, and Geological Catastrophes: New Translations and Interpretations of the Primary Texts*, ed. Martin J. S. Rudwick, (Chicago: Univ. of Chicago Press, 1998), p. 51.

skeletal remains; a usage that would become anachronistic within a few years. Georges Cuvier's theory of *Catastrophism* hypothesizes that a series of sudden cataclysmic events preceded the formation of the continents and these would cause the mass migration of a species, the modification of its form, or its total obliteration. The concept of extinction was developed to explain absence of animals such as the giant cave-bear. What was groundbreaking, in the work of Cuvier, DeLuc, and Esper is the fact that,

They recognized that the first step to make in divining the past was to establish the present firmly. Since then, instead of imaging causes, one has collected facts. Mountains, veins, and strata have been penetrated in all directions; one has assembled their materials and compared them with one another; and already we possess a mass of genuine knowledge that far surpasses all that could have been hoped for when this method began to find favour.⁶⁵

Cuvier suggests that by studying nature by close observation in a comparative method, 'the sciences – like peoples – pass from poetry to history.'⁶⁶ Novalis seems to have taken a reverse tact by allowing history to pass into poetry. Novalis describes the cave of a hermit in *Heinrich von Ofterdingen* that contains the bones of bears, where they 'carry on within the strongholds of the earth and be forced by the inner-fires of the earth's dark womb to grow into forms gigantic in size and powerful of mind.'⁶⁷ The large bones of the ancient bears were held nearly as sacrosanct as the mineralised portraits of Martin Luther in stone found by miners. Both mineral formations represent the past, one in the form of

⁶⁵ Cuvier, p. 47.

⁶⁶ Cuvier, p. 47.

⁶⁷ Novalis, *Heinrich von Ofterdingen*, 1802, trans. from the German by Hilty Palmer in *Henry von Ofterdingen* (New York: Frederick Ungar Publishing Co., 1964), p. 79.

vanquished raw power and the other in the form of enduring faith. The bones of the cave bear are natural objects, arriving there by chance, whereas the miraculous representations of Luther exist in the world below by divine placement, God's Will.

3. The Views from Within

In so far as that it may symbolically represent an Ossian cave, the stone chamber in Friedrich's *Vault* recalls the hermit's cave in *Heinrich von Ofterdingen* whose floor was level and walls regular, like the facets of a precious stone. Novalis' cave is a modest room illuminated by the light of the past and, in its sobriety, reflected 'the gradual calming of nature.'⁶⁸ Once a miner and soldier, Novalis' hermit found solitude in the quiet of the ascetic underworld where he contemplated nature,

Though it may be that nature today is not so fertile anymore, that today metals and precious stones, crags and mountains no longer come into being, and that plants and animals do not shoot up to such astonishing size and strength. The more the procreative powers of nature have waned, the more its shaping, ennobling, and social powers have grown, its heart becomes more tender and receptive, its imagination more varied and vivid, its hand more deft and artistic. Nature is approaching human beings; and whereas she was formerly a wildly producing cliff, today she is a tranquil, growing plant, a silent human artist.⁶⁹

In order to enable the protagonist of the story to achieve an epiphany, Novalis placed him deep within the earth in a wild, but essentially ordered and austere

⁶⁸ Novalis, p. 87.

⁶⁹ Novalis, p. 88.

environment. Novalis' understanding of the innate qualities of the interior space of a cave was informed by theories of the earth's formation that proposed that the earth was an inherently crystalline structure, thus there was a faceted quality to some of these spaces as well as the mineral matter found within them. Images of the deep mines reflect this geometric model of terrestrial interiority as we can see in Plate 7 of Johann Friedrich Wilhelm von Charpentier's (1728-1805) monumental *Beobachtungen über die Lagerstätte der Erze hauptsächlich aus den Sächsischen Gebirgen. Ein Beytrag zur Geognosie* (1799) (fig. 3.29).

Plate Five in the same volume portrays a miner at work in a gallery; his curvilinear human form contrasts sharply with the severity of the hard edged cavity in which he labours (fig. 3.30).⁷⁰ The visual echoes of his silhouette – an elevated arm bent at the elbow, the softened L-shape of his kneeling legs, the top of his hat – these shapes repeated in the walls and ceiling of the dark space are designed to geometrize his organic form. Measurement of the various angles in the engraving made with a protractor reveal a sophisticated series of relationships founded on Pythagorean theorems.⁷¹ Abraham Gotthelf Kästner, one of the most important mathematicians in eighteenth century Germany whose work, *Anfangsgründe der Analysis des Unendlichen* (1760), was admired by Novalis

⁷⁰ Johann Friedrich Wilhelm von Charpentier, *Beobachtungen über die Lagerstätte der Erze hauptsächlich aus den Sächsischen Gebirgen. Ein Beytrag zur Geognosie*, (Leipzig: Georg Joachim Göschen, 1799).

⁷¹ These measurements were made by this author. The major postulate investigated by the German mathematicians of Friedrich's time was known as the (I.47) found in Book One of Euclid's *Elements* which states: *In right-angled triangles the square on the side opposite the right angle equals the sum of the squares on the sides containing the right angle.* This postulate is arrived at when calculating the proof for the Pythagorean Theorem.

and Friedrich Schlegel, wrote extensively on Euclid's theory of the Pythagoras' parallel postulate, and, without attempting to explain Euclidean geometry in detail, it should be noted by the reader that students of the Freiberg Mining Academy were well-versed in these hypotheses and Kästner's work on them.⁷² Certainly, the underlying geometrical arrangement in the Charpentier engraving is a consequence of this knowledge. Although Goethe may have famously professed a distrust of mathematics as the language of science, others, such as Novalis embraced the belief that the logical structure of mathematics was only a reflection of the inherent unifying principle of the universe.⁷³ More practically, mathematical theory was used in order to identify specific patterns of ore in the ground and also to describe the formal characteristics of certain minerals. Novalis studied under Charpentier in Freiberg and became engaged to his daughter, Julie, during his apprenticeship in mining administration in 1798. This occurred following the death of his mystical love, Sophie von Kühn, whom he met whilst studying with Fichte. One suspects Novalis applied Fichte's concept of Absolute Will not only to his understanding of philosophical precepts, but also to his mystical view of human intervention in the subterranean world. Charpentier was the Professor of Mathematics and Drawing at the Mining Academy and, along with Johann Friedrich Lempe (1757-1801), promoted the use of mathematics in categorization of the external characteristics of minerals.

⁷² Martin Dyck, *Novalis and Mathematics*, (Chapel Hill: Univ. of North Carolina Press, 1966), pp. 47-49.

⁷³ Even if Goethe distrusted mathematics in some applications, his accounting practices for the mines at Ilmenau depended on it. See Myles W. Jackson, 'Natural and artificial budgets: accounting for Goethe's economy of nature,' in *Accounting and science: Natural inquiry and commercial reason*, ed. Michael Power, (London: Cambridge Univ. Press, 1996), pp. 57-80.

It is easy then to understand how the interior space described by the engraving referred to above exhibits an emphatically geometric character. Nearly all of these mathematical and oryktognostic theories began through the interrogation of the shape of the globe which we will attend to shortly.

Although the drawing for *A Vault* was made *in situ*, that does not preclude the fact that Friedrich chose to draw the site because of its crystalline features. The shapes within Friedrich's vault are carefully selected by the painter. The painting was preceded by two early sepias that were views of the interior of his studio in 1805-6 and which share the quality of faceted aspect (fig. 3.31 and 3.32). The sepias, *View from the Artist's Studio, From the Left and Right*, have been discussed at length within the literature on Friedrich and are referenced too within scholarship concerning Romantic subjectivities. One sepia includes a self-portrait of the artist situated in the reflection of a mirror; the relative location of the top of his head itself mirrors the position of the top edge of the trees where they meet the sky on the right side of the open window. Edges are in abundance in this part of his studio. Glass meets frame, wall meets wall, shadow meets light. Scholars have noted the geometric character of these ink drawings and their lack of narrative content. Werner Busch has made known that both the key and the scissors hang on an invisible horizontal line that forms part of the Golden Section.⁷⁴ Börsch-Supan imparts an allegorical meaning to the two works – the diagonally composed view represents the *vita activa* and the frontal view, *vita contemplativa*. He supports this interpretation by performing an inventory of the content and assigning a meaning to the objects in the sparse room; a key hung on the wall indicates activity, etc. He observes that the 'contemplative' drawing

⁷⁴ Busch, 2003, pp. 26-33.

differs from its counterpart by its simplified structure. Börsch-Supan suggests too, that the cutting-shears to the left of the 'contemplative' window are an allusion to *Parze Atropos*, the inevitable one, the third of the Three Fates.⁷⁵ I would like to elaborate on this identification in order to position these sepias as significant indicators of the catachthonic stream of Friedrich's thought.

The Fates, according to ancient tradition, are Lachesis (she who determines the length of the thread of life), Klotho (she who spins the thread of life) and Atropos (she who cuts the thread of life). A watercolour by Johann Heinrich Meyer (1760-1832) represents the three, each with the appropriate attribute, seated outside a womb-like cave (fig. 3.33, *Die drei Parzen*). This watercolour of classical figures in vernacular dress inspired Herder to pen the poem, *Die Parzen, Ein Gemählde von Heinrich Meyer*. In the *Die drei Parzen*, the artist appears to have used the stage direction for 'a barren, rocky surrounding, a cave in the earth, and a pomegranate tree bearing fruit,' that Goethe provided for his melodrama *Proserpina* (1778) and, in fact, the quintessence of the drawing was developed further into a stage design by Meyer for a production of Goethe's *Proserpina* in Weimar in 1815 (fig. 3.34).⁷⁶ Goethe and Meyer were the primary judges for the Weimar Friends of Art award that Friedrich received in 1805 for two of his early sepias, *Procession at Dawn* and *Summer Landscape with Dead*

⁷⁵ 'Die Darstellung unterscheidet sich von dem Gegenstueck durch die einfachere Raumstruktur und die Beschraenkung in den Motiven, die nun allegorisch zu lesen sind ... Die Schere links ist eine Anspielung auf die Parze Atropos, die Lebensfaden abschneidet.' Börsch-Supan, p. 256.

⁷⁶ 'Eine öde felsigte Gegend, Höhle im Grund, auf der einen Seite ein Granatbaum mit Früchten.' The Weimar production with music by Karl Eberwein was praised by Goethe in an essay published in the 8 June *Morgenblatt* 1815.

Oak.⁷⁷ In contrast to Meyer, Friedrich chose not to personify Fate as personages – and the thread of life is not present in the *Views* only the device that cuts it. The symbolic cord insinuating life and death may be found in Friedrich's collaborative woodcut, *The Woman with Spider's Web* (1801/04), except that the thread of life is represented by the single woven strand of a spider web and the tool to end life is the architect of its sticky nature rather than being an exogenous divinity (fig. 3.35).⁷⁸ If this is how Friedrich intended the cutting-shears to be read, then the contextual dialectic between the two views of the atelier is much more complex than has been previously suggested. I would like to offer a further allegorical analysis of the two sepias before I return to the issue of the formal structure of Friedrich's interior spaces.

Friedrich Hölderlin (1770-1843) wrote a verse entitled, *An die Parzen* (*To the Fates*), first published in 1799,

One summer only grant me, you powerful Fates,
And one more autumn only for mellow song,
So that more willingly, replete with
Music's late Sweetness, my heart may die then.

The soul in life denied its god-given right
Down there in Orcus also will find no peace;
But when what's holy, dear to me, the

⁷⁷ William Vaughan provides an excellent discussion on the award of the Weimar prize and the events that followed; from Friedrich's refusal to participate in Goethe's cloud studies to Heinrich Meyer's review in *Kunst und Alterthum*. See William Vaughan, *German Romantic Painting*, p. 81.

⁷⁸ The spider web is used to denote many emblematic subtexts. For instance, it is the second emblem in *The Cabinet of Minerals* (*Vervolg van 't cabinet der mineralen*, 1675) of Goosen van Vreeswyk, the eminent Dutch expert on mining.

Poem's accomplished, my art perfected,

Then welcome, silence, welcome cold world of shades!

I'll be content, though here I must leave my lyre

and songless travel down; for once I

Lived like the gods, and no more is needed.⁷⁹

The relationship of the darkened interior spaces of Friedrich's studio and the bright day on the river outside both windows where boats progress on the river – one with a sail propelled by wind, the other, by the toil of the boatman – is more

79

Nur Einen Sommer gönnt, ihr Gewaltigen!

Und einen Herbst zu reifem Gesange mir,

Daß williger mein Herz, vom süßen

Spiele gesättiget, dann mir sterbe.

Die Seele, der im Leben ihr göttlich Recht

Nicht ward, sie ruht auch drunten im Orkus nicht;

Doch ist mir einst das Heilige, das am

Herzen mir liegt, das Gedicht, gelungen,

Willkommen dann, o Stille der Schattenwelt!

Zufrieden bin ich, wenn auch mein Saitenspiel

Mich nicht hinab geleitet; Einmal

Lebt ich, wie Götter, und mehr bedarfs nicht.

English translation by Michael Hamburger from *Hölderlin: Selected Poems and Fragments*, (New York and London: Penguin, 1998), p. 7.

A different translation by Frederic Prokosch follows more closely the Norbert von Hellingrath edition (Berlin, 1929) and preserves the cadence of the Greek metres adhered to by Hölderlin. It may be found in Frederic Prokosch, *Some Poems of Frederic Hölderlin*, (Norfolk: New Directions, 1943).

than a straightforward allegorization of death; it is one addressing the truths and falsehoods of perception. Similarly, Hölderlin contrasts the brightness of summer and the ripening of verse in the second line of the first stanza with the darkness of the underground and the disintegration of corporeality in the second line of the second stanza. As for Hölderlin's relationship to this project – it is widely accepted that his influence on Heidegger's late thought on 'fourfold' nature draws on much of Hölderlin's work (Heidegger wrote extensively on Hölderlin throughout his life); and many critics see the critical turn of Heidegger's thought from philosophy to the experience of thinking as located in his deepening understanding of Hölderlin's oeuvre. It is this alleged 'misinterpretation' of the poet by Heidegger that is flawed according to many other philosophers. I do not intend to take a position in this contest; it is Hölderlin's representation of 'dwelling' and how it informed Heidegger that interests me.⁸⁰

Hölderlin's reference to Orcus, both as a place and, implicitly, as a god of the underworld and enforcer of oaths, plays on Virgil's etymological expansion of the word in his *Georgics* and *Aeneid*. Orcus, whose roots come from the Greek word for *barrier* (*Ορκος/ειργω*) can also mean 'the shutting in' or 'shutting out' of one thing or another.⁸¹ The poet asks for more time before *Parcae Atropos*

⁸⁰ For further reading on this subject of influence and the scholarly reception of it, see Jennifer Anna Gosetti-Ferencei, *Heidegger, Hölderlin, and the Subject of Poetic Language: towards a New Poetics of Dasein*, (New York: Fordham Univ. Press, 2004). English translations of Heidegger's work on Hölderlin, Martin Heidegger, *Elucidations of Hölderlin's poetry*, trans. K. Hoeller, (New York: Humanity Books, 2000) and *Hölderlin's Hymn: The Ister*, (Indianapolis: Indiana University Press, 1996).

⁸¹ See Michael Paschalis, *Virgil's Aeneid: Semantic Relations and Proper Names*, (Oxford: Clarendon Press, 1997), p. 177. For a discussion of the influence of Virgil on

cuts the thread of life so that he may perfect his art, hence achieving the creation of a divine product – an impossible task for a mortal, unless he is granted dispensation by the gods themselves which is, in fact what he asks; a lengthening of the thread dispensed by Lachesis. Hölderlin avidly studied Virgil and, in some cases, emulated the poet. Since he began the verse with a request for *only* two more seasons during which he would ripen his song, a dubious reader, like an Orcian judge, might challenge the veracity of the poet's final declaration when he states that he desires nothing else from the world. It is this poetic mendaciousness as well as its tragic beauty which is evocative of the two sepias. Both the author of the poem and composer of the pendant sepias, play on the concepts of the 'shutting in' and 'shutting out' of declared truth and the construction of barriers to truth's symbolic light – Hölderlin through his desperate though not, disingenuous oath and reference to the underworld; Friedrich by way of his seemingly, direct presentation of two-sides of the same visual story and the solid walls of the darkened room.

Further, Friedrich capsizes the logic of appearance through the disclosure of *self* in the mirror in the second sepia which 'shuts in' light and the concealment of *self* in the first sepia where his reflection is absent. Whether his pendants are a

Hölderlin, specifically in relation to the imagery of the seasons, see Vinzenz Buchheit, 'Frühling bei Vergil und Hölderlin,' *Euphorion - Zeitschrift für Literaturgeschichte*, vol. 91, no. 2, 1997, pp. 157-82. For further reading on this subject of influence and the scholarly reception of it, see Jennifer Anna Gosetti-Ferencei, *Heidegger, Hölderlin, and the Subject of Poetic Language: towards a New Poetics of Dasein*, (New York: Fordham Univ. Press, 2004). English translations of Heidegger's work on Hölderlin, Martin Heidegger, *Elucidations of Hölderlin's poetry*, trans. K. Hoeller, (New York: Humanity Books, 2000) and *Hölderlin's Hymn: The Ister*, (Indianapolis: Indiana University Press, 1996).

contrivance to symbolize two prospects of life and death or merely the vision of twin outlets in a wall, they are made something other than what they appear to be by the presence of the key and the cutting-shears. In these two drawings, the Kantian noumenal and phenomenal spheres are *not* blended; the unanimity of Friedrich's consciousness does *not* structure a unity of experience thus they are intended as a determined failure in the creation of a unified appearance of the world. This perceptual dislocation causes the subsequent experience for the viewer: the two drawings first appear to be of a mirrored-view of the same window and, after prolonged observation, become just what they are – two separate views of two different windows. Joseph Koerner is correct in arguing that, for Friedrich, 'experience and the representation of experience are *not* identical.'⁸² If Friedrich is 'playing' with the Fates by including the cutting-shears as an allusion to the *Parcae Atropos*, then he is a very clever man indeed – because their cognate in the other sepia, the key, is likely not the symbol of active life as Börsch-Supan supposes but of Hecate (Klêidouchos), keeper of the keys, a goddess of the underworld; Goethe's,

Diana, Luna, and Hecatè!
 Deep pondering mind, expander of the breast,
 Mighty within, though outwardly at rest,
 Unclose the gulfs abysmal of thy shade,
 Be without spells thine ancient might displayed.⁸³

⁸² Koerner, p. 212.

⁸³

Diana, Luna, Hekate!
 Du Brusterweiternde, im Tiefsten Sinnige,
 Du Ruhigscheinende, Gewaltsam-Innige,
 Eröffne deiner Schatten grausen Schlund,
 Die alte Macht sei ohne Zauber kund!

The key on the wall is not the symbol for an active life, but a dynamic mind emerging from a wall in shadow.

In his chapter on the construction of the content of art in *The Philosophy of Art*, Schelling states that ‘mythology is the necessary and first content of all art.’⁸⁴ Schelling devotes much of this chapter to the world of the gods. He believes that myth is best understood symbolically, rather than through schema or allegory.⁸⁵ He goes further by stating that the gods unify the universal and the particular, and that this state of unification is actualized in Greek myth – and this must be taken into account when considering the content of a work of art. The world must form itself out of one individual point as the gods do and that night and fate are ‘the dark background, the hidden and mysterious identity from which all gods have emerged.’⁸⁶ For Schelling, this one point is the absolute point of indifference and, when we attempt to find the one individual point about which the two sepia drawings of Friedrich are formed, we realize that it lies in-between the closest two edges of each – the drawings share no point, only the reflected light.⁸⁷ The visual logic of the pendants dictates that the two objects,

Goethe, *Faust. Eine Tragödie*, Part II, Act II, lines 1343-47. Translated from the German by Anna Swanwick in *Faust: A Tragedy*, (New York: Thomas Crowell & Co., 1888), p. 302.

⁸⁴ Friedrich Wilhelm Joseph von Schelling, *Ideas for a Philosophy of Nature*, trans. Errol E. Harris and Peter Heath, (Cambridge/New York: Cambridge Univ. Press, 1988), p. 45.

⁸⁵ Schelling, p. 48.

⁸⁶ Schelling, p. 41.

⁸⁷ According to Schelling, the point of indifference is the god Jupiter. Existing below him are Vulcan and Neptune, ‘the forming and formless principle (iron and water) ...

the key and the cutting shears, hang on the same wall on either side of the same mirror. If the pendants are an allegory of Christian death and after-life, active or contemplative life, why would Friedrich mix his metaphors? Is there not an interpretation that is better aligned to the schema of the two implements? It far more likely that the pendants are an allegory of perception, not of redemption and, more specifically an allegory of the truth of perception of *one* point, viewed from two points, and emerging only to be lost in the shadowy in-between.⁸⁸ I defer to Hölderlin's poem, *Looking Outward (Aussicht)*:

The open day is bright with pictures for everyone,
when green fields appear on the distant plain,
before the light of evening yields to twilight,
and reflections of light alleviate the noise of the day.
The inner being of the world often appears clouded
and hidden, and people's minds are full of doubts
and irritation, but splendid nature cheers up their days
and doubt's dark questions stay distant.⁸⁹

The totality of the world of the Greek gods, would, by the way, not be complete if only the necessary and not every *particular* and perhaps even accidental view of things were not equally absolute (Schelling, p. 43).⁹ These symbolic representations are a key to understanding the figuration of the subterranean worlds as we shall see.

⁸⁸ William Vaughan argues that the view is intended to be read as two views from one point (Vaughan, p. 84) and Werner Busch argues for a different view through his study on the Golden Section in these two works (Busch, pp. 26-33).

⁸⁹ Aussicht

Der offne Tag ist Menschen hell mit Bildern,
Wenn sich das Grün aus ebner Ferne zeigt,
Noch eh des Abends Licht zur Dämmerung sich neiget,
Und Schimmer sanft den Klang des Tages mildern.
Oft scheint die Innerheit der Welt umwölkt, verschlossen.
Des Menschen Sinn von Zweifeln voll, verdrossen,
Die prächtige Natur erheitert seine Tage
Und ferne steht des Zweifels dunkle Frage.

In his seminal essay, *The Open Window and the Storm-Tossed Boat*, Lorenz Eitner decries the tendency of art critics to find meaning only in form by insisting ‘that form is meaning, not a vehicle for meaning.’⁹⁰ He rebukes art criticism that elevates the analysis of style to the detriment of the examination of subject matter - particularly when it concerns nineteenth-century art which as he said, ‘for better or for worse, contained a great deal of literature.’ He posits that the function of an interior space with a window went beyond its suitability as a framing device; that the dramatically shallow spacing between the viewer and the casement enforced the mood of intimacy such as that desired by a portraitist, thus the motif was frequently used by these figure painters. There are numerous examples of artists who chose to place their human subject at a window, and Friedrich does this, of course, with his *Woman at the Window* (1822). However, the painting is not a conventional portrait (fig. 3.36). Koerner observes the difference between this work and the earlier sepias is that the bodily presence of the woman at the window performs as a subjective gesture indicative of supplication directed at Nature, that which is outside the window, or that which

Den 24. März 1671

Mit Untertänigkeit

Scardanelli.

Aussicht was written whilst Hölderlin was confined to a room overlooking the Neckar River in Tübingen. After a brief institutionalization to treat his mental instability, Hölderlin moved into the home and care of the Zimmer family and he declared himself to be Scardanelli. He lived with the family for thirty-six years, leaving ‘the tower’ only for walks.

⁹⁰ Lorenz Eitner, ‘The Open Window and the Storm-Tossed Boat: An Essay in the Iconography of Romanticism,’ *The Art Bulletin*, vol. 37, no. 4 (Dec. 1955), p. 281.

is not her self.⁹¹ I refer the reader back to the fifteenth-century woodcut discussed in chapter two, *The Way of Salvation*. The nun is dwarfed by the great mountain towering above her. She is guided through the path of salvation vis-à-vis the markers stacked, one atop the other, ascending towards God the Father. She is not physically upon the path and we are not behind her, stepping in her steps. Her ambulation is a cognitive stroll through the act of prayer. The function of this print as a device for moral instruction was intended as an aid for contemplation, not as a sign of reflection. The device of the supplicating *Rückenfigur*, in the case of the *Woman at the Window*, is a sign of reflection but a paradoxical one.⁹² According to Koerner, the *Views* from Friedrich's studio do and do not embody the experience of vision; or as is the case with other works

⁹¹ Koerner, p. 131.

⁹² *Rückenfigur* is the term used by Friedrich scholars to describe figures seen from the back without making the face visible. By not showing facial expression or, even a face, Friedrich seems to have unconsciously followed the advice of Johann Jakob Engel, the author of *Ideen zu einer Mimik*, (Berlin, 1804). This volume may very well prove to be an important resource in my project to make an inventory of all of Friedrich's painted figures, including those by Kersting. In this landmark guide for theatrical practitioners by Engel, the author attempts to apply a Linnaean system to human gestures. He notes throughout that thoughtfulness or the thoughtful examination of an observed object is best represented by little exterior expression of the senses. The Engel text is accompanied by 34 etchings by Johann Wilhelm Meil (1733-1805). Meil was an important book illustrator in the late eighteenth century. He taught classes on expression and composition at the Berlin Akademie der Künste in Berlin. He contributed designs for costumes for Berlin theatre and opera productions. It is worth noting that Meil designed accurate historical dress for a production of Goethe's *Götz von Berlichingen* in 1774. See W. Dorn, *Meil Bibliographie: Verzeichnis der von dem Radierer Johann Wilhelm Meil illustrierten Bücher und Almanache*, (Berlin, 1928) and *Deutsche Zeichnungen des 18. Jahrhunderts: Zwischen Tradition und Aufklärung*, ed. T. W. Gaethgens and others, exh. cat. Berlin, Kupferstichkabinett, 1987.

that contain a *Rückenfigur* (and are not like the *Views*, the mirrored reflection of both what the artist sees and the truncated image of the artist seeing it), they ‘simply repeat the experience of exclusion, keeping us out of the landscape by being merely a painted image.’⁹³ Michael Fried discusses the motif of the open window in relation to the philosophy of reflection in his pioneering study on the painter Adolph Menzel. As Koerner did so skilfully in relationship to Schelling in his chapter entitled ‘Reflection’ in his work on Friedrich, Fried follows a fascinating rift on Kierkegaard and *either/or* as it relates to Menzel.⁹⁴ Fried points out that *Woman at the Window* is an unstable consciousness because of her slightly off-centre position under the emphatically centred wire-crossed window pane that seems to hover above her.⁹⁵ He quotes Robert Pippin, ‘self-determination, even *in* experience, requires also a *loss* of any immediate sense of self.’⁹⁶

Acknowledging that the image of a window without a figure was a Romantic innovation, Eitner makes the observation that the absence of the figure makes room for the viewer to enter *into* the interior space and sense the confinement that is contrasted to the immensity of the open space outside of the window frame. It is the enforcement of this subjective space that Novalis postulates in the second fragment from his *Fichte-Studien*:

Consciousness is a being outside of being that is within being.
But what is that?
What is outside being must not be a proper being.

⁹³ Koerner, p. 213.

⁹⁴ Koerner, pp. 211-32.

⁹⁵ Michael Fried, *Menzel's Realism: Art and Embodiment in Nineteenth-Century Berlin*, (New York and London: Yale Univ. Press, 2002), p. 91.

⁹⁶ Fried, p. 277 (ff30).

An improper being outside being is an image – So what is outside
being
must be an image of being within being. Consciousness is
consequently
an image of being within being.⁹⁷

Novalis is referencing the well-known pedagogical event reported by Henrik Steffens in his autobiography and, by recounting this event here; I hope to clarify our understanding of the varied registers of reality as they exist within the walls of Friedrich's *A Vault*. Fichte is in the lecture hall at Jena and has asked his audience to close their eyes and imagine the wall; he pauses, then instructs, 'now ... gentlemen, let your thought be, that which thought the wall.'⁹⁸ The exercise was intended to draw his audience's attention to 'beholding' consciousness. This consideration of Idealist philosophy does not necessarily challenge my assertion that *A Vault* and *The Hut in the Snow* are, in part, catachthonic cultural productions. The bifurcation of what is fact and what is belief is what lends the paradoxical sense of indeterminacy and potentiality to Friedrich's works – this does not preclude the fact the identification of the hut as an entrance to a mine. As Dario Gamboni points out, it is the potentiality of images that 'make its temporal and subjective side explicit.'⁹⁹

The two early *View* sepias differ from *A Vault* simply by virtue of the fact that the window is a threshold for our perception of the exterior, not a physical route

⁹⁷ Novalis, *Fichte Studies*, ed. Jane Kneller, (Cambridge Univ. Press, 2003), p. 5.

⁹⁸ Steffens, *Was Ich erlebte*, vol. IV, p. 80. The passage reads, '“Meine Herren,” fuhr darauf Fichte fort, “denken Sie die Wand,” – ich sah es, die Zuhören dachten wirklich die Wand es schien ihnen allen zu gelingen. – “Haben sie die Wand gedacht?” fragte Fichte. “Nun, meine Herren, so denken Sie denjenigen, die Wand gedacht hat.”'

⁹⁹ Dario Gamboni, *Potential Images: Ambiguity and Indeterminacy in Modern Art*, (London: Reaktion Books, 2002), p. 16.

in order to enter the outside. Windows provide passage for the mind through the sense of sight thus enabling our awareness of confinement, only to realize that only our vision can 'be' outside. We pass through to the outside by 'thinking' not by walking through a door. In both of the *View* sepias, we are still ensnared in the imagining of an image that purports to be an image of our imaging, 'an image of being within being.' We interiorize the experience of non-movement by looking *at* our 'looking through.' The doorway in *A Vault*, however, offers a different type of threshold. We can imagine moving through one interior space to another; yet when we reach the out-of-doors, we are once again confined by the wall on the opposite side of the courtyard that is punctured by a window that is barred. The image allows both implicit physical and explicit perceptual movement. It is an image of consciousness both defying and realizing its limitations.

A Vault is a place where humans are no longer present, except as an architectural memory of the historical past. Unlike the quarters of the Friedrich home in Dresden pictured in the *View* sepias, the rooms of the Convent Church in Meissen are not occupied except by the lone fir tree. Like the bear-caves, the residents have long since left and – similar to the bear-caves – it is visited on occasion by living beings longing to know the past; their animate presence, however, is fleeting. The sense of nostalgia that one intuits in *A Vault* is closer to the sense of nostalgia expressed by Novalis' hermit, who longs not for the medieval age but for an earlier, ancient time when the lost giants of nature lived in his cave. The *Vault* is an extinct space, not a place of the extinct. It is an empty space that leads to another empty place.

Straight away, we are aware that the depth of space in *A Vault* is defined by registers of receding vertical surfaces. The first barrier we encounter is the masonry wall of a room in which we, the viewers, are situated. There is nothing that lay between us and the wall with its doorway. Large, irregular hand-cut stones frame the opening over which two tiers of vertically stacked bricks form a slightly pointed archway. Through this opening we may enter the next space. To pass into the next room, we must first climb over stone rubble – although the means of access is made easier by a large stone with a flat horizontal surface in the centre of the mineral debris – the surface is slightly depressed in the middle and one cannot help but be reminded of Frederick H. Evans’ photographs of English cathedrals, particularly *A Sea of Steps* from 1903 (fig. 3.37). The second space is a shallow, coved space, just deep enough for a figure to stand and rotate 360 degrees – or 180 degrees in order to return to the darkened room. The floor of this antechamber is an uninterrupted flat surface whose front edge is uneven hence the centre section extends towards us, making sense of the edge of the stone on the left in the rubble. It is a fragment broken off the step, not a purposeful obstruction to our passage. Once again, the forward egress is through a second doorway whose shape and general structure mirrors the first. This space is a wholly different one because the surface of the floor does not appear to be stone and the wall is not in deep shadow. The dark tonality which compels the viewer to look more closely at the surfaces is lifted. The definition of the surfaces, however, is less distinct in the brighter room than those in shadow - yet there are more ‘particulars’ to look at; an iron grille made up of two sets of crossed bars, exposed bricks in the plaster, a rectangular shape fixed to the wall, a fir tree. There is a deep contrastiveness inherent in these varied vertical

surfaces. The language of light may be a temporal language; here however, Friedrich is not expressing time but space. Börsch-Supan identifies the fir tree with resurrection, the darkened room with human existence, the lighted space with death, the blinding white light emanating from the other side of the window bars as the after-life – and this is certainly plausible. Nearly all of the scant literature devoted to interpreting this painting advocate that it is an allegory of Death. Human mortality is frequently expressed through temporal signs; the passage of day into night, human flesh into bones, the decay of flowers or foodstuff, and so forth. In the *Vault*, I would like to propose that light operates to describe space, not time. Let us consider the light that defines this place, then, not as symbolic of life and after-life, a marker of time, but as a physical entity, a penetrant of space.

4. The Light from Above Penetrating the Matter of Below and Lucretius

Because spaces located beneath the surface of the earth have no natural source of light, it is necessary for a person who is both representing and travelling within the underworld to illuminate these dark places so that they can be made visible. The nature of light as an agent for visibility and visuality, as understood in the late eighteenth and early nineteenth centuries, was contested.¹⁰⁰ The debates surrounding the physics of light figured significantly in how an artist or writer might choose to ‘illuminate’ the earth’s interior. In *Kampaner Thal*, Jean Paul points out that a man who cannot visualize his own inner world might perceive it

¹⁰⁰ See Jed Z. Buchwald, *The Rise of the Wave Theory of Light: Optical Theory and Experiment in the Early Nineteenth Century*, (Chicago: Univ. of Chicago Press, 1989).

be an imaginary golden web without form; his inability to imagine form is akin to his facility to take involuntary gulps of 'electrical atmosphere' without ever 'feeling the spark,' always grasping at an invisible thread.¹⁰¹ In the closing chapter of *Versuch über das Licht* (1800), Johann Jakob Engel (1741-1802) argued for the universal penetrability of light.¹⁰² A gentleman scholar, Engel fancied himself to be very clever, and although he had no formal training in the field of physics, he undertook the task of trying to reconcile the extant particle or emission theories and wave theories of light. It was Georg Christoph Lichtenberg, the physicist and aphorist, who was one of the first to propose a particle-wave theory of light.¹⁰³ Engel could not match Lichtenberg in intellect; however, he could communicate to the public quite well, though without the sharp satirical edge of the Göttingen scholar. Born in Mecklenburg, Engel was a popular philosopher and the tutor of Friedrich Wilhelm III, who wrote theatrical

¹⁰¹ Jean Paul, *Kampaner Thal*, p. 57, '... die ganze innere Welt nur wie ein Luft- und Spinnengewebe vor, wie einer, der nur in die elektrische *Atmosphäre* anstatt an den *Funken* selber great, durch win unsichtbares Gespinst zu griesen meint.'

¹⁰² Johann Jakob Engel, 'Versuch über den wahren Begriff der Emanation,' *Versuch über das Licht*, (Berlin: Mylius, 1800).

¹⁰³ Lichtenberg taught Novalis and Alexander von Humboldt at Göttingen amongst many other eminent thinkers. Lichtenberg is, perhaps, one the best examples of a German scientist whose research and findings were rigorous yet the findings were delivered with wit and cleverness and often interconnected to the unlikely realm of the psyche; as we discover in the following aphorism on the properties of light in relation to a colleague: 'He could split a thought which everyone considered simple into seven others, as a prism splits sunlight; and each one of them surpassed the one before. And then, another time he could collect a number of thoughts and produce the whiteness of sunlight, where others saw nothing but motley confusion,' in Franz H. Mautner and Henry Hatfield, *The Lichtenberg Reader: Selected Writings of G. Ch. Lichtenberg*, (Boston: Beacon, 1959), p. 89.

dramas and satire – this being so, he was able to address the explication of quite complicated scientific theories to a popular audience. In his *Versuch über das Licht*, Engel emphasizes the material nature of light. He notes the source of light on earth is the sun and this light is both absorbed by and reflected back from the earth; therefore, Engel concludes, light possesses the dualistic property of emanation and return. This further suggested to Engel that light has an electrical or magnetic mode of propagation; it may travel, so it has substance. It also has the ability to enter into other matter, infuse this matter, and this is evidence of its ability to permeate certain other substances. As the reader may have already noticed, Engel made far-ranging conclusions based on little scientific evidence, however, for his readers, this made sense; and, as speculative and inaccurate as Engel's opinions were, they did influence the popular understanding of light.

According to Engel, light is a very special material indeed. Light makes objects tangible as Man gives form to his experience – the link of light with the inner mind liberated it from its symbolic function. Lorenz Oken describes light in these terms:

The contest of the primary principles of the elemental bodies upon the planet appears to be light. Light is now more closely characterized. It is no longer merely the tension of aether generally, but tension of material elemental bodies. Thereby light has been torn from heaven and given to earth ... Light tends to the centre of the earth, because between this and the sun the tension oscillates. The line of tension is only between two centres ... Light, as an Aetherial, permeates matter, and must on that very account pass toward the middle point of the earth, because it is virtually none other than the tension of both middle points, the earth and the sun. Originally therefore the light must have gone through the earth. This permeation is not, however, mechanical but dynamic, and is indeed necessarily a propagation of the tension of aether through the matter. Matter is susceptible of the

same polarization of which aether is susceptible, because it is on no account different from the aether.¹⁰⁴

Oken further stated, 'In whatever direction light may fall upon the earth, it must strive towards the middle point. Those bodies that have in themselves the earthy nature attract the light.'¹⁰⁵ Just what does Oken refer to when he states that bodies with an earthy nature attract light? He is referencing mineral matter that resides below the surface and tells us that it is, essentially, the same stuff as ether, therefore, equally capable of attracting light. Oken believed that architecture represents the bodily universe in ideas, sculptural art represents the terrestrial, and that these might be represented in light within a painting.¹⁰⁶ A painter knows this already since the 'earthy' nature of the mineral pigments attracts light. This brief discussion concerning the concept of the penetrability of light through solid matter as understood in popular culture in the late eighteenth- and early nineteenth- centuries was an essential diversion in order to better inform our discussion of *A Vault* and, we will also need to examine the concept earth's shape as it changed dramatically at the beginning of the nineteenth century. It was the re-examination of the works of Lucretius in light of new findings in the geological sciences, in part, which brought the issue to the forefront of Romantic science. The shape of the earth was a topic addressed by many theologians as well as scientists in the Romantic Age.

During the Enlightenment and the Romantic Age, Lucretius, the first century B.C. author of *On the Nature of Things* (*De rerum Natura*), was perhaps, with

¹⁰⁴ Oken, Lorenz. *Lehrbuch der Naturphilosophie*, trans. Alfred Tulk, *Elements of Physiophilosophy*, (London: Ray Society, 1847), pp. 70-71.

¹⁰⁵ Oken, p. 71.

¹⁰⁶ Oken, no. 3638-3642.

the exception of Plato, the most influential ancient thinker upon European philosophical thought. Karl Ludwig von Knebel (1744-1834) published a celebrated translation of *De rerum Natura* in 1821. Lorenz Oken reviewed the translation favourably in *Isis oder Encyclopädische Zeitung* in 1823 and reflected on the importance of Lucretian thought in existing disputations; both in contextual and stylistic terms.¹⁰⁷ Knebel was a materialist; therefore, it was natural that his interest in Lucretius was so keen.¹⁰⁸ He was a friend and confidant of Goethe who introduced Friedrich to the poet in 1811. Goethe held the Roman's speculative ruminations in high esteem.¹⁰⁹ Knebel and Goethe

¹⁰⁷ Lorenz Oken, *Isis oder Encyclopädische Zeitung*, vol. 1, no. 1, 1823, p. 3.

¹⁰⁸ Titus Lucretius Carus, *T. Lucretius Carus von der Natur der Dinge*, trans. C. L. von Knebel, (Leipzig: Georg Joachim Göschen, 1821). Knebel apparently shared a draft of the project with Goethe twenty years before it was published [*Briefwechsel Zwischen Goethe und Knebel*, vol. 1, (Leipzig: Brockhaus, 1851), p. 200.]. Hans Blumenberg in *Shipwreck with Spectator: a Paradigm of a Metaphor for Existence*, trans. Steven Rendall, (The MIT Press: Cambridge, London, 1997), p. 48, notes that Goethe, whilst Knebel was present, quoted a passage of Lucretius in order to justify his silence about the political situation in Jena. Henry Crabb Robinson saw himself as one of Knebel's closest intimates and recorded discussions concerning Lucretius with Herder, Knebel, and Goethe in H. C. Robinson, *Diary, reminiscences, and correspondence*, ed. Thomas Sadler, vol. 1, (London: Macmillan and Co., 1869), p. 198-200. George Santayana's *Three Philosophical Poets: Lucretius, Dante, and Goethe*, (Cambridge: Harvard Studies in Comparative Literature, 1910), is a masterful comparative study of materialism/naturalism (Lucretius), supernaturalism (Dante) and experience/idealism (Goethe) that ultimately renovates the notion that speculative thought is as important to the development of original ideas as empirical processes.

¹⁰⁹ In a letter dated from 1811, Knebel tells of his meeting in Jena with Caspar David Friedrich during the artist's visit to Goethe, 'Er sieht ganz einem alten Germanen gleich, mit röthlich gelbem Haar und Bart, blauen Augen und kräftigem, ausdrucksvollen Gesicht,' translated, 'He appears to be an old Teuton entirely, with reddish- yellow hair and beard, blue eyes and strong, expressive face.' Börsch-Supan, p. 146. Knebel further

understood through their reading of Lucretius that a thinker could be both a natural philosopher and poet – thus Goethe intended to write a study of Lucretius that asserted his belief that the Roman poet was the perfect model of the melding of two types.¹¹⁰ Goethe discussed with the Knebel the importance of imaginative insight in regard to matters of science and literature. He encouraged Knebel to resist making a literal translation of *De rerum Natura*; rather he urged the translator to expand the text beyond the boundaries of conventional language in order to achieve a translation that embodied the original spirit of Lucretius.¹¹¹

The Lucretius revival inspired the idea that a scientist should adopt a more artistic approach to writing that was taken up by many, including Alexander von

states that even though Friedrich stayed for just two days, they became very good friends. It was Knebel who famously reported that Friedrich told him that he wanted to go to Iceland, rather than Italy. Most believe that this statement by Friedrich was meant ironically, although there might be a grain of truth in it that could be located in his interest in the *Edda*. Knebel's sister, Henriette von Knebel, sent her brother a letter in February of 1813 that details a now-lost painting by Friedrich in the possession of the Prinzessin von Sachsen-Weimar, Caroline Luise. The letter ends with an unfortunate assessment of Friedrich's effort, 'Ich fürchte fast, dass es diesem Künstler wie den anderen Mystikern geht: wenn sie ihrem Geschmack allzu lang nachhängen, so werden sie endlich abgeschmackt,' translated, 'I am afraid that this artist is like the other Mystics: if they hold onto their peculiar taste all too long, then they are themselves, in the end, unsavoury.'

¹¹⁰ *Goethe Sämtliche Werke, Cotta'sche Jubiläums-Ausgabe*, Vol. 37, (Stuttgart: Cotta, 1904-6), p.218.

¹¹¹ 'Anschauung gesellt sich die Einbildungskraft, diese ist zuerst nachbildend, die Gegenstände nur wiederholend. Sodann ist sie produktiv, indem sie das Angefaßte belebt, entwickelt, erweitert, verwandelt' (Goethe, *Sämtliche Werke: Briefe, Tagebücher und Gespräche*, ed. Hendrik Birus et al., vol. 9, (Frankfurt/Main: Deutscher Klassiker, 1985), p. 152.

Humboldt whose prose has been celebrated in scholarly studies.¹¹² Another prominent Romantic who was almost the opposite of Goethe in terms of poetic temperament, Jean Paul, said that Lucretius' observations of natural history were not simply meant for instruction, but to ignite the heart's unity of feeling.¹¹³ As explicated earlier in this chapter, Jean Paul imagined landscape in oblique empathy with Friedrich. In rare alliance with Jean Paul, Goethe wrote the following essay, *Über den Granit* ('On Granite'):

I do not fear the accusation that a spirit of contradiction has lead me away from my contemplation and depiction of the human heart, that most recent, most voluble, most variable, mobile, most changeable part of creation, to nature's opposite; granite, the most ancient, firmest, deepest, imperturbable son of nature. For everyone will gladly admit that all natural things stand in a definite relationship to one another and that the investigative spirit will not let herself be excluded from any attainable sphere. I have suffered and am still suffering from the alternating quality of human convictions, from the restless movement within myself and with others ... in such a mood I approach the most ancient and worthy monuments of the ages. Sitting on a high, naked summit and beholding the outline in the distance, I may say to myself: Here you are resting directly upon the foundation which reaches down to the deepest layers of the earth. Neither developing strata, nor layer of rubble is placed between you and the firm ground of

¹¹² See *Beschreibung der Welt: Zur Poetik der Reise- und Länderberichte*, ed. Xenja von Ertzdorff, (Amsterdam: Rodolphi, 2000) and Robert van Dusen, *The Literary Ambitions and Achievements of Alexander von Humboldt*, (Frankfurt: Lang, 1971).

¹¹³ 'Reflexionen oder Kenntnisse werden nicht an sich zur Lehre, sondern für das Herz zur Einheit der Empfindung gereiht und als eine mit Blumenketten umwickelte Frucht dargeboten,' Jean Paul, *Vorschule der Ästhetik*, 'Programme XIII,' no. 75., 1813.

the primeval world. You do not walk, as you must in those fertile, beautiful valleys, across persisting graves. These summits have produced nothing of life and have devoured nothing living. They are before all life and above all life. At this instant, therefore, the inner earth forces of attraction and motion affect me directly and the heavenly influences soar close to me, I become at one with a higher observation of nature. And since the human spirit animates everything, an image arises in me whose sublimity I cannot resist ... Only here, a warning may not be superfluous ... even we Germans, who are otherwise conscientious in such matters, have recently confounded granite with a kind of rock formed out the bonding of quartz and hornstone and further, more recently confusing the grey rock with a mixture of quartz and slate found of the Harz mountains.¹¹⁴

¹¹⁴ Ich fürchte den Vorwurf nicht, daß es ein Geist des Widerspruches sein müsse, der mich von Betrachtung und Schilderung des menschlichen Herzens, des jüngsten, mannigfaltigsten, beweglichsten, veränderlichsten, erschütterlichsten Teiles der Schöpfung, zu der Beobachtung des ältesten, festesten, tiefsten, unerschütterlichsten Sohnes der Natur geführt hat. Denn man wird mir gerne zugeben, daß alle natürlichen Dinge in einem genauen Zusammenhange stehen, daß der forschende Geist sich nicht gerne von etwas Erreichbarem ausschließen läßt. Ja man gönne mir, der ich durch die Abwechselungen der menschlichen Gesinnungen, durch die schnelle Bewegungen derselben in mir selbst und in andern manches gelitten habe und leide ... Mit diesen Gesinnungen nähere ich mich euch, ihr ältesten, würdigsten Denkmäler der Zeit. Auf einem hohen nackten Gipfel sitzend und eine weite Gegend überschauend, kann ich mir sagen: Hier ruhst du unmittelbar auf einem Grunde, der bis zu den tiefsten Orten der Erde hinreicht, keine neuere Schicht, keine aufgehäufte zusammengeschwemmte Trümmer haben sich zwischen dich und den festen Boden der Urwelt gelegt, du gehst nicht wie in jenen fruchtbaren schönen Tälern über ein anhaltendes Grab, diese Gipfel haben nichts Lebendiges erzeugt und nichts Lebendiges verschlungen, sie sind vor allem Leben und über alles Leben. In diesem Augenblicke, da die innern anziehenden und bewegenden Kräfte der Erde gleichsam unmittelbar auf mich wirken, da die Einflüsse des Himmels mich näher umschweben, werde ich zu höheren Betrachtungen der Natur hinaufgestimmt, und wie der Menschegeist alles belebt, so

Goethe sits atop a high mountain, surveying the valleys beneath him. He writes of a summit experience (*Gipfelerlebnis*) when his heart – the mechanics of which he has recently been contemplating and, is likely pumping rapidly from overexertion and the high altitude – has settled under the influence of the immensity of all that lay beneath him and his anxious heart. Despite the professed scientific purpose of these musings, Goethe recognizes a soulful quality to the organ; a Lucretian poetical moment to be sure. When Goethe observes that he is ‘resting directly upon the foundation which reaches down to the deepest layer of the earth,’ he draws our attention to the depth not only of the extent of the Earth’s stratum but also the depth of the human heart.

An image that exemplifies these dual profundities described by Goethe can be found in a technical treatise written for the mining industry. The representation of a miner who has unearthed a remarkable ore fragment acts as the frontispiece to Karl Gustav Adalbert von Weissenbach’s *Abbildungen merkwürdiger Gangverhältnisse aus dem sächsischen Erzgebirge (Illustrations of Remarkable Ore-Course Conditions in the Erzgebirge of Saxony, 1836)*. The image illustrates a location deep below the surface at which a miner, crouching close to

wird auch ein Gleichnis in mir rege, dessen Erhabenheit ich nicht widerstehen kann ... Nur möchte eine Warnung hier nicht überflüssig sein ... ja, sogar wir Deutsche, die wir sonst in dergleichen Dingen so gewissenhaft sind, haben noch vor kurzem das Toteliegende, eine zusammengebackene Steinart aus Quarz und Hornsteinarten und meist unter den Schieferflözen, ferner die graue Wacke des Harzes, ein jüngeres Gemisch von Quarz und Schieferteilen, mit dem Granit verwechselt.

Johann Wolfgang von Goethe, ‘Granit II,’ *Sämtliche Werke*, ed. Karl Richter, et al., (Munich: Carl Hansen Verlag, 1985-98), Vol. 2, no. 2, p. 505.

the tunnel's floor, holds a heart-shaped fragment of ore before him (fig. 3.38). When Heinrich Heine made his journey down the shafts of the Clausthal mines in the Harz, he described coming upon miners such as those elegised by Weissenbach:

Down below there is a confused rustling and humming, one strikes constantly against beams and ropes, which are in motion in order to haul up the buckets with broken ore or the water which has trickled out. At times one arrives in hewn out passages, called galleries, where one can see the ore growing, and where the lonely miner sits the whole day, laboriously breaking pieces of ore out of the wall with his hammer ... like a friendly, quiet and yet at the same time tormentingly puzzling remembrance there met me, with their profoundly clear gazes, the gravely kind, somewhat pale faces, mysteriously illuminated by the mine lamp.¹¹⁵

The miner in the lithograph stares at the rock with a look of wonder and awe. The innate quality of the planographic process allows for the subtle gradation from light to dark; accordingly, the lump of ore appears to reflect the light, from the candle-lamp on the wall of the gallery, onto the face of the miner – so ‘mysteriously illuminated by the mine lamp.’ Although the figure of the miner is not exceptionally well-drawn, the print pulsates with the miner’s delight with his unusual discovery. Of course, it was well-known that the shape of the human heart was not as it appears in the lithograph; although, the awkwardly drawn clutch of his left hand around the ‘two-lobed heart’ could be read as the ventricles of the organ. The anatomically incorrect symbol of the human heart originated long ago and was imitative of the shape of the silphium seed, a now-

¹¹⁵ Heinrich Heine, *Die Harzreise*, 1826, p. 37.

extinct, curative plant related to fennel, formerly found in Cyrene (fig. 3.39).¹¹⁶

The heart in the grasp of the miner, however, represents something other than a medicinal seed or the symbol for human love; it is, at once, both the creative force that enlivens the veins of ore deep in the earth and his own uncorrupted heart. Well-known to nearly every person associated with the mining industry at the time, Theodor Körner's *Bergmannsleben* (1810) tells of the life of the miner whose task is to bring the treasures excavated below to the surface (Körner was a close friend of Friedrich). The sixth stanza could very well be the source of the Weissenbach image:

Under our hammer's blows,
The Earth issues forth a rich yield
From the fissure of the cleft rock.
That which we have in the mining pit won,
Ascends towards the pure radiance of the sun
Towards the light of the surface.
Our striving to bring that which swells
In the darkest depths to the surface,
A golden world and the diamond's splendour,
Is a reward in itself.¹¹⁷

¹¹⁶ Pliny describes it as being so valuable that it was worth its weight in silver, and 'one of the most precious gifts from Nature' [*Natural History*, XIX, 15: 38-46].

¹¹⁷ Quillt der Erde reicher Segen

Aus der Felsenklüft hervor.

Was wir in dem Schacht gewonnen,

Steigt zum reinen Glanz der Sonnen

Zu des Tages Licht empor.

Herrlich lohnt sich unser Streben,

Bringet eine goldne Welt

Und des Demants Pracht zu Tage,

Die in finsterner Tiefe schwellt.

The title of the lithographic image, *Ort Stoss*, indicates that this is the active location in the gallery where the miner strikes at a vein. By the mid-century, physiologists, medical doctors and anatomists use the term to describe the spot associated with the movement of blood in relationship to the heart and nerves.¹¹⁸ There are many terms used in medical nomenclature that originated within speleological or mining culture, as I shall argue later in this chapter.

In *De rerum Natura*, Lucretius makes the claim that all Primordial Bodies are absolutely solid, indestructible and indivisible and could thus be found under the surface of the earth as well as in the air. He postulates that the earth holds the origin of these bodies in its interior.¹¹⁹ Even if they did not agree with his postulations, the great geologists of the day venerated Lucretius. Like Jean Paul, Alexander von Humboldt was influenced as much by Lucretius' prose style as his observations of nature. 'The great physical picture of the universe by the Roman poet,' Humboldt writes, 'contrasts in its cold doctrine of atoms, and in its frequently visionary geognostic hypotheses ... in the midst of the active and busy life of the statesman, and in a mind excited by political passion, a keen susceptibility for the beauties of nature and an animated love of the rural solitude still subsists.'¹²⁰ A friend of his brother Wilhelm von Humboldt, Gustav von Brinkmann, commemorated in a poem Alexander's *Lucretianesque*-ability to love and reveal nature whilst communicating his observations in a thorough and competent fashion:

¹¹⁸ Wilhelm Max Wundt, *Lehrbuch der Physiologie des Menschen*, (Erlange: Verlag von Ferdinand Enke, 1865), p. 287.

¹¹⁹ Lucretius, 1957, pp. 20-21.

¹²⁰ Alexander von Humboldt, *Cosmos: A Sketch of a Physical Description of the Universe*, trans. E.C. Otté, vol. 2, (New York: Harper & Bros., 1860), p. 30.

O friend! Ever since many a veil
of superstition has dropped;
in many ways, overpowered by the
fires of the longing, we may more freely
delight in the drink from the fountain of truth,
honour us as did Lucretius,
as Epikurus has taught him,
prepare to reveal ancient nature,
brighten these times of phantoms
with a holy song of praise.¹²¹

Both Alexander von Humboldt and Leopold von Buch were students of Abraham Gottlob Werner and concurred with his theory that all rocks were borne of a Universal ocean, consistent with the biblical narrative of the Deluge; however, they eventually disputed parts of this theory, particularly that basalt was a chemical precipitate. Werner represented the position of Neptunism (the earth was borne of water); whereas, his students supported the Vulcanist position (the earth was borne of fire) and that the volcanic basalt was the result of the internal melting of rock over long periods of geological time. For a vulcanist, Lucretius was an important influence since he discussed the volcano as being an essential

¹²¹ Gustav von Brinkmann in *Wilhelm von Humboldts Briefe an Karl Brinkmann*, ed. Albert Leitzmann, (Leipzig 1939), pp. 253-254:

O Freund! seitdem so mancher Schleier
des Aberglaubens niedersank;
so mancher Weise, von dem Feuer
der Sehnsucht hingerissen, freier
am Quell der Wahrheit Wollust trank,
komm, lehre Du, in hellern Zeiten
des Wahns, ein bessrer Epikur,
mich würdig auf Lukrezens saiten
der nimmer älternden (!) Natur
ein heilig Loblied zu bereiten.

contributor to the formation of a mountain - which he understood, not as a solid mass but rather as a network of hollows kept open by basaltic piers forming grottoes filled with wind and air. According to Lucretius, wind is created by the heating of air which in turn heats the earth that then 'hurtles upward' in order to escape.¹²² The tops of mountains become bowls and are formed and then re-formed by the action of the wind from below. The natural scientists, all of whom read Lucretius, travelled the four corners of the earth to collect data and make observations of phenomena – often climbing very high mountains. With the fresh data from remote locations, they were better able to blend the new sciences of geology and geognosy. Goethe believed the best place to go to understand nature more deeply was a mountain – as the observations he made within the essay, *Über den Granit*, demonstrate.

Thomas Burnet, the seventeenth-century author of *The Sacred Theory of the Earth* founded his hypothesis on the book of Genesis, although he argued that the formation of the earth was the result of the Deluge brought on by natural causes. He supposed that the surface of primordial earth was like that of an egg, smooth and unblemished and that a great deluge caused the shell of the earth to crack like an egg and the subterranean waters – the white of the egg – forced their way up. The yolk of the egg, on the other hand, was fiery and made up of metals and minerals that, like the subterranean waters, rose to the surface and set the shell ablaze. Essentially, the earth was broken. Isaac Newton certainly did not see the earth shaped as an egg. He saw the earth as nearly spherical, bulging at the centre like an onion, whereas Descartes saw the earth as roughly oblong, like a lemon, bulging at the poles; with gravity stronger or weaker at the poles

¹²² Lucretius, p. 293.

respectively. Commencing in 1735, a decade long French expedition with the objective of measuring the curvature of the earth's surface, proved Newton correct. By the middle of the eighteenth-century, Europeans knew the earth was shaped neither like a lemon nor an egg; and, theorists dropped vegetable and fruit shapes from the list of metaphors used to describe the contour of the globe.

5. *Strenge Regulärität*

Now, most relevant for our discussion of Caspar David Friedrich's *Vault*, is Lorenz Oken's belief that the earth's shape is based on the geometric principles of the polyhedron. The polyhedron is a geometric entity that is the general shape of a globe without being perfectly smooth. More specifically, Oken theorized that the earth developed from a rhomboidal dodecahedron, a near sphere with 12 faces and twenty-four edges.¹²³ For Oken, this would explain the varied surface elevations of the earth. The edges of the polyhedron's crystalline features were transformed into chains and ridges of mountains. According to Oken, 'the mountains are not therefore large crystals, which crystallized above the surface of the earth. They are only crystal laminae, and may be as irregular as possible in form; for they are ruptured crystals.'¹²⁴ The angles, edges and surfaces of the earth are evidence of its geometrical origins. For Oken, this crystallization is the spiritual activity of the earth as a whole and magnetism is the spirit of the metals which are found below the surface. Hollows within the earth were formed in the development of the surface and these hollows captured water which tended to condense and expand creating heat, then steam, changing the shape and size of

¹²³ Oken, p. 123.

¹²⁴ Oken, p. 124.

the grottoes, caves and hollows below the surface. The voids created during the formation of the surface features of the globe were varied in character; some geometrical, others ostensibly unstructured. These cavities collapsed so that valleys were formed on the surface, and displaced hot earth was sent upward to form mountains. The hot earth became metal formed by fire and Oken offers an interesting statement in regard to its characteristics: 'ore is a child and a treasure of darkness; where light is, ore must vanish; it cannot endure the gaze of light. Metal when exposed to day is given up to annihilation, to oxidation.'¹²⁵ Ores are the children of heat, but also progeny of the force within the darkness below the surface, magnetism. Oken believed that the formation of ore provides the best earthly evidence against Cartesian theories of a mechanical nature and creation. I will argue in the next chapter that Oken explains this inorganic growth by way of nature's trait of desire.

Heinrich Heine famously described being able to hear ore grow during his journey to the Clausthal mines – claiming this indicated that the earth is continuously recycling itself.¹²⁶ Magnetism and light are the agents of earth's development; together, magnetism and the sun are the source of all terrestrial action. In fact every bit of earth is a magnet according to Oken. It is, 'in a philosophical sense a reduced earth' – the primordial, indivisible atom hypothesized by Lucretius.¹²⁷ Light and magnetism are the forces that transform all matter into something other than its original self. In this light, my earlier argument that the female figure in *Women Before the Setting Sun* is a magnet

¹²⁵ Oken, p. 149.

¹²⁶ See Heinrich Heine, *Die Harzreise*, 1826, p. 36.

¹²⁷ Oken, p. 150.

energized by the sun's last remaining light is even more plausible. Since, according to Oken's form of Romantic Science, all chemical processes are based on the union of bodies and the transmutability of the fluids and solids, it follows that desire is the mechanism for this union. Is Friedrich's woman an object of desire or does she house the desired objects like a mine does its jewels? This question will be addressed in the next chapter. For now, this is the point where, as Michel Chaouli puts it, 'chemistry begins and ends in a messy middle.'¹²⁸

What image of matter, of earth and its mountains and underground hollows, do Lucretius and Oken offer us that might explain what Friedrich's vault *is*? We have established that Oken describes an underworld of caves born through the generation of crystalline structures that leave behind spaces of straight edged planes which reflect their origin. Novalis evidently held a similar position, even if, as some literary scholars who know his creative and not his scientific writings surmise, the cave in *Heinrich von Ofterdingen* is a fantastical rather than authentic place. A student of Abraham Gottlob Werner's theory of the external characteristics of minerals, Novalis was applying what he knows about geology to his subject. Werner's *Von den äusserlichen Kennzeichen der Fossilien* (*On the External Character of Minerals*, 1774) is considered to be the first modern textbook on mineralogy.¹²⁹ In his foreword, Werner noted that all sciences are valuable, 'but they differ in the fact that some are more extensively useful and

¹²⁸ Michel Chaouli, *The Laboratory of Poetry: Chemistry and Poetics in the Work of Friedrich Schlegel*, (Baltimore: Johns Hopkins University Press, 2002), p. 211.

¹²⁹ Abraham Gottlob Werner, *Von den äusserlichen Kennzeichen der Fossilien*, (Leipzig: Siegfried Lebrecht Crucius, 1774).

more closely related to common life than others.’¹³⁰ I have offered the hypothesis that Friedrich found in the more practical science of mining and its concomitant literature a way to picture the mechanism of creation in both vernacular and symbolic terms – and, his lay-knowledge of the popularized geological and speleological investigations of the day expanded his understanding of the inner mind. Werner Busch’s recent study on the mathematical principles extant in Friedrich’s work points to the artist’s familiarity with Romantic theories of mathematics and I suggest that we might also surmise that Friedrich observed how the measurement of dimension and shape impact the nature of any object as it is ideated. In the first chapter of *External Character of Minerals*, Werner introduces a four-tiered system for the study of minerals based on their external, internal, physical, and empirical characters – the deeper the mineral resided in the earth, the nearer it was to its original formal character. As we know, Novalis was a gifted mathematician and he attempted to find a simple algebraic pattern in Werner’s theory. It was, as earlier mentioned, his relationship to Johann Friedrich Wilhelm von Charpentier that informed his investigation into the geometric character of the underworld. Novalis stated, ‘Geometry is the transcendental art of signs.’¹³¹ And, he further noted that:

Knowledge comes from something. It always refers to a something –
It is a reference to Being, in the determined being in general,
namely in
The I.

¹³⁰ Abraham Gottlob Werner, *On the External Character of Minerals*, trans. Albert V. Carozzi, (Urbana: Univ. of Illinois Press, 1962), p. xxiii.

¹³¹ Novalis, *Fragmente II*, no. 2369, pp. 159-60.

In *knowledge* of the determined being, the *accent*, the stress is on the being;
the determined is only baggage, it is
an accident. With *feeling* it is the opposite. The accent lies on the form, on the determination. The being is only baggage, is an accident. Consciousness is the sphere of knowledge.¹³²

In a somewhat oblique fashion, Novalis equated his theoretical musings directly with material objects and subjective/conscious thought; thus assigning physicality to both thought and the organ that thought it. This radical idea, a sweeping development from Kantian philosophy, has yet to be commented on in the History of the Cognitive Sciences and Medicine. The poet/scientist seems to have anticipated the mind-brain controversy in terms of current neurological sciences.

In his study on Novalis, the Germanist Martin Dyck found that the poet identifies shared meanings within linguistic and mathematical practises and how these might be extended also to a calculus of art.¹³³ The poet makes an associative leap by pondering whether it is possible to have artistic production without data; hence, in his literary efforts, he states that his 'data' comes from what he knows, mine engineering and mathematics. Novalis often conjured fascinating analogies that are so simply stated that the straightforward assertions belie their profundity. Novalis believed, like Goethe, that the least complicated conjecture is more complete than the most complex; therefore, elementary geometry is a more valuable tool in understanding reality than higher

¹³² Novalis, *Fichte Studies*, ed. Jane Kneller, (Cambridge Univ. Press, 2003), p. 60.

[These are Fragments 182, 183 and 185 from Group I.]

¹³³ Martin Dyck, *Novalis and Mathematics*, (Chapel Hill: UNC Press, 1960), pp. 67 and 81.

geometry.¹³⁴ His attitude formulates a Romantic version of ‘keep it simple stupid’ for mathematicians. Philipp Otto Runge coined a comparable aesthetic concept to this; *strenge Regulärität*, the device used by the artist to prevent him from resorting to fantastical structures in his work. I am not suggesting that Runge was ‘keeping it simple,’ only that he was conscious that compositional discipline enables the artist to formulate a clearer image even if the content is complex. Friedrich’s works share the analogic properties of Novalis’ literary productions and the stuff of Friedrich’s imagery are anamnestic objects from his journeys into mountains where he walked past the ruptures in the earth’s surface sometimes shielded by structures, other times revealed as cavernous voids. I believe his understanding of the application of geometry to composition, as demonstrated by Werner Busch, creates a correspondence of pictured objects with real objects in Friedrich’s innovative arrangements. Like the *Views from the Artist’s Studio*, the composition of Friedrich’s *Vault* is austere, faceted, and simple. Its structure is analogous not to a cultural production of space, rather to tellural development, the strata of an inner space whose ‘earthy’ quality attracts light. It is an allegory of interiority so then it is a cultural production of self revealing the cognitive capacity of the mind to illuminate itself. It is, as Hans Blumenberg would insist, a cave from which one may advance in order to create

¹³⁴ Novalis, *Novalis’ Schriften*, ed. P. Kluckhohn and R. Samuel, vol. III, (Leipzig und Berlin, 1929), p. 20, ‘Das Höchste und Reinste ist das Gemeinste, das Verständlichste. Daher ist auch die Elementargeometrie höher als die höhere Geometrie. Je schwieriger und verwickelter eine Wissenschaft wird, desto abgeleiteter, unreiner und vermischter ist sie.’

new spaces; it shows the way out.¹³⁵ It is image of emergence, whereas *The Hut in Snow/ The Entrance to a Mine* is an image of submergence.

6. The Cave in the Harz and the Faces in the Rock

If, for the sake of argument, the *Vault* is an allegorical space for emergence, what space does it represent beyond a threshold to death that has always been attributed to it? I would like to propose that by looking at a specific set of images of the earth's interior space, we might begin to see that Friedrich utilized similar strategies as those engravers and lithographers who pictured caves and mines. Accomplished examples of these are seven remarkable engravings found in Johann Friedrich Charpentier's *Beobachtungen über die Lagerstätte der Erze hauptsächlich aus den Sächsischen Gebirgen. Ein Beytrag zur Geognosie* (*Observations Concerning the Ore-beds of the Saxon Mountains: A Contribution to the field of Geognosy*, 1799). The engraver of plates one, two and three, Johann Adolph Darnstedt (1769-1844), was one of the leading etcher/engravers of Germany at the time. The remainder were prepared by J. G. Schmidt, possibly the co-overseer of the Freiberg mines, and all of the images were based on drawings made by Charpentier during his survey of mines in Saxony.¹³⁶ It was a

¹³⁵ Hans Blumenberg, *Höhlenausgänge*, (Frankfurt: Suhrkamp, 1987).

¹³⁶ Darnstedt etched fig. 4.99, the print commemorating the memorial for Theodor Körner designed by Gottlob Friedrich Thormeyer in 1814. J. G. Schmidt, an engraver from Braunschweig, etched several images for *Die Zeitung für die elegante Welt* (see the frontispiece for the compilation of year 1802). For J. G. Schmidt's possible identification as both an engraver and a mining official see Thomas B. Adams, 'Berlin and the Prussian Court in 1798,' in *Bulletin of the New York Public Library*, (New York: NYPL, 1915), p. 827.

convention that a scientist-traveller would make rough sketches *in situ* and present this to a professional artist with which to create a finished drawing, watercolour, or oil-sketch. This was then passed either to an etcher, engraver, or lithographer to create a matrix for printing. In this case, the drawings are based on Charpentier's own.

Thomas Burnet speculated as to how the earth would appear to a stranger from distant space - would he see an aqueous mass, an irregular mountainous sphere or a 'broken body; a ruined frame of matter?'¹³⁷ However, an even more intriguing question is how the interior of the earth would become visible to an earthbound observer. In order to truly comprehend the nature of earth's structure, 'we would have to drain all the waters and rip off the coverings of all caverns and subterranean places.'¹³⁸ When looking at the intaglio prints that illustrate Charpentier's observations, it appears that is just what the author has done. Through a succession of engraved scenes, the reader is able to visually follow a path from the entrance to the underground into the deep parts of the earth (fig. 3.40 and 3.41).

The first image in the 1799 volume is an exterior view of the opening to a mine (fig. 3.42). The print illustrates how a traveller would approach the entry by way of a road that appears to be at the bottom of a narrow valley or ravine. A rocky outcropping, on which a group of trees and other foliage grows, forms an arch-shaped crown above the entrance. The trees atop the higher earth grow in a stunted fashion and their trunks make eccentric turns. This is likely the result of

¹³⁷ Thomas Burnett, *A Sacred Theory of the Earth*, (London: J. McGowen & Son), 1816, p. 175.

¹³⁸ Burnett, p. 176.

their roots having to grow in fits and starts, twisting and turning as they made their way through the stone of the cliff. To the right of the entrance, tucked up on a grassy shelf, is a discarded basket. The basket is an artefact from the past meant to document the haulage of ore (fig. 3.43). With the exception of the two wooden rafters set above the entry, it is the sole evidence of human occupation. The two horizontal beams visible under the outcropping form an adit collar which acts to reinforce the opening at the surface. The tilt of the ground downwards into the narrow cavity reveals that it is not a gob entry like the great gaping entry at the Falun Mine in Sweden. At Falun, great heaps of rubbish lies along the sides of its wide, expansive opening. E.T.A. Hoffmann described it in his tale, *The Mines of Falun*:

The enormous gulf, like the jaws of hell itself ... the main shaft of the Falun mines is some twelve hundred feet long, six hundred feet broad and a hundred and eighty feet deep. Its dark brown sides go, at first for the most part, perpendicularly down, till about halfway they are sloped inwards towards the centre by enormous accumulations of stones and refuse.¹³⁹

The narrow opening and lack of any evidence of mine tailings or rubbish make the first plate of Charpentier's volume a *Schacteneinfahrt*, the mouth of a tunnel that may serve either as an entrance or for ventilation. It leads to the underground passage excavated horizontally into the side of a hill or mountain. The setting of this adit is beneath the top of a mountain in a gorge. The prospect of the mine entrance is located far below the horizon line; the sky has already been excised from the scene, thus the image as a whole communicates below-the-

¹³⁹ Hoffmann, 'The Mines of Falun,' in *The Best Tales of Hoffman*, trans. Alexander Ewing, (New York: Dover, 1967), p. 293.

surface depth to the viewer. We are drawn down into the pits. A similar image was created by Friedrich in the late 1820s or early 1830s (fig. 3.44). *Harzhöhle* was based on two drawings made on 26 and 27 June 1811 at the area known as the *Marmorbruch*, a marble quarry near Rübeland in the Harz (fig. 3.45 and 3.46) where the ground appears to have ruptured spewing forth the fine grained stone.¹⁴⁰ It is likely that sculptor and travelling companion in the Harz, Gottlieb Christian Kühn, steered Friedrich in the direction of the quarry. The French travelogue writer, Mangourit, references the high number of tombs and sarcophagi in Germany sculpted from the marble of the Harz – naturally, Kühn would wish to visit the source of much of the marble he sculpted.¹⁴¹ Friedrich used the two drawings of the *Marmorbruch* as source models for two pictures painted several years before he made the sepia (fig. 3.47 and 3.48).

Whilst analysing the companion paintings, *Graves of Ancient Heroes* (1812) and *The Grave of Hermann* (1813), most scholars refer to the *Harzhöhle* sepia only in passing. Without going into an exhaustive examination (these paintings already have received much attention in the scholarship concerned with the political dimensions of Friedrich's work), I will remind the reader that *Graves of Ancient Heroes* is one of the pictures created by Friedrich to commemorate the fallen heroes of the Wars of Liberation, many of whom served in the Lützow

¹⁴⁰ Friedrich mentions *Der Marmorbruch bei Rübeland im Harzgebirge* as measuring '18 ½ Zoll breit und 14 ½ Zoll hoch,' in a letter to Dr. Wilhelm Körte from Halberstadt dated 21 Juli 1821 in Hinz, p. 56. It is likely that this work is the painting known as *Die Felsenschlucht* (1821), see *Caspar David Friedrich: Die Briefe*, ed. Herrmann Zschoche, (Hamburg: Conference Point Verlag, 2005), pp. 154-55.

¹⁴¹ Mangourit, p. 16.

volunteer corps.¹⁴² The three graves of his deceased friends, Friesen, Hartmann, and Körner, are placed in and around a grotto in a rocky gorge. Two French dragoons approach the large tomb of Hermann under the rock canopy; one turns his head and peers over his shoulder making direct eye contact with the viewer – a gaze one is unable to meet, unless he or she is standing before the actual work. A white marble obelisk displays a winged male figure on its surface in addition to a pair of crossed swords above the relief; and, as with the dragoon's gaze, only by standing before the painting does one realize that a white flower with six petals grows where the swords' hilts meet. Much is made in the literature of the sense of impending doom that the painting expresses. Linda Siegel has pointed out that the lids to the caskets or tombs in these paintings are slightly ajar; presumably to allow the spirits of the dead patriots to wander.¹⁴³ However, I would like to draw the reader's attention away from the centre of *Graves of Ancient Heroes* and to its edges. The sky is not visible. The trees that grow above and to the side of the opening to the underground cavern are twisted and eccentrically shaped – they are not the tall straight fir trees in *The Grave of Hermann*; rather, they are similar to those discussed in the first image in the 1799 Charpentier volume. The image is also very close in likeness to an entry to a cave illustrated as an aquatint, *Eingang in die Lippoldshöhle*, in Johann Christian Rosenmüller's study of caves (fig. 3.49).¹⁴⁴ We, the viewers, as well as the two

¹⁴² Börsch-Supan, p. 205, Einem, p. 114, Geismeyer, p. 65, Grütter, p. 143, Hinz, 1966, p. 69.

¹⁴³ Linda Siegel, 'Synaesthesia and the Paintings of Caspar David Friedrich,' *Art Journal*, vol. 33, no. 3, (Spring, 1974), pp. 197-98.

¹⁴⁴ Johann Christian Rosenmüller, *Beschreibung merkwürdiger Höhlen. Ein Beitrag zur physikalischen Geschichte der Erde*, vol. 1, (Leipzig, 1799), the description of the cave

French dragoons are drawn into the cave. Everything seems to spill into the orifice in the earth, rather than spill out of it; a trait shared with Friedrich's *Source of the Elbe in the Riesengebirge* (fig. 4.8), a representation of subterranean entry located amongst the highest elevations of Bohemia. Friedrich used this compositional strategy in order to impart a phenomenological sensation of decent to his viewers.

Approximating an equivalent central schema of *Graves of Ancient Heroes* in the *Harzhöhle*, Friedrich brings into play the same basic shapes to describe the interior and exterior; obscure, dark recesses and outlined profiles of light rock, respectively. A very large monadic stone (referred to specifically as a *craton* or *der Endversturz* in speleological terms) occupies the greater part of the opening to the underground in both works. The tomb immediately to the right of the afore-mentioned monolith and inside the cave of *Graves of Ancient Heroes* has reverted back to a block of marble in *Harzhöhle*. *Graves of Ancient Heroes* was painted within a few years of Friedrich's actual journey to the spot upon which all of the images of the marble quarry are based. *Harzhöhle*, however, painted ten to fifteen years after the oil painting, is closer in composition to the original two *Marmorbruch* site sketches of June 1811 than it is to the painting. The increased precision of detail permitted by the medium of sepia has been taken advantage of by the artist.

As the viewer's gaze moves further into the represented space of *Harzhöhle* and looks with greater attention at those light and dark edges which define exterior and interior space; one observes that, although they might, at first

in Rosenmüller's volume is from a reprint of an article with a detailed description of the Lippoldshöhle in the *Hannöverische Magazin*, 1774, p. 714.

glance, read identically to those same points within the *Graves of Ancient Heroes*, several sites in the *Harzhöhle* differ dramatically. A comparison of details from the sketches, the painting, and the sepia supports this. Upon examining the graphite drawing dated 26 June 1811, we find that the rock structure directly to the right of the opening is made of three boulder-like shapes above which a larger stone surface is sketched (fig. 3.50). An examination of the 27 June 1811 graphite with wash drawing reveals that this spot is the same one depicted in the drawing of the day before, except that the ink wash has allowed the artist to distinguish the tone of this stone structure from the surrounding stones which appear to be of darker value (fig. 3.51). In the corresponding detail in *Graves of Ancient Heroes*, we find the artist has done little to change the image taken from the two drawings other than to add the colour and detail to the surface of the rock; a modification that would be expected in the oil medium (fig. 3.52). However, by inspecting the analogous detail of the *Harzhöhle* sepia, we learn the artist has dramatically altered the original image (fig. 3.53). The stones are no longer in their natural state. At first masked by our own expectation as viewers, the rock face appears to be plain. As in the other works, there are bits of grass growing on the crest of the stone. However, in scrutinizing the surface more closely, an unnatural feature is exposed. What appears to be the profile of a human head complete with a brow, a triangular notch for an eye, and the silhouette of a nose and chin, rests upon a carved bust; the base of which is crenulated. Unexpectedly, the tufted grass on the top of the rock that folds around its dimension now reads like a helmet plume and the shape of the rubble resembles the shield of a warrior. It is a subtle transformation but dramatic in relation to Friedrich's other images of the *Marmorbruch*.

Looking intently at the remainder of the sepia, we begin to find other evidence of unusual objects emerging from the stone. The rock face to the left of the large, single stone at the subterranean entrance in *Harzhöhle* is a rock *face*. Taking the same tact as we used in exploring the previous formation through details of each of the *Marmorbruch* pictures, we see a similar development. The initial graphite shows little detail in the area (fig. 3.54), the second drawing reveals little more than a bulky protuberance from the rock (fig. 3.55), and this same stony distension can be found in *Graves of Ancient Heroes* (fig. 3.56). Nevertheless, when we begin our investigation into the nature of the same rock in *Harzhöhle*, the profile of another head becomes visible (fig. 3.57). One half-expects to find more and more of these anthropomorphic mineralized heads. Formal correspondences between the separate works emerge from this close comparative examination; for instance, there is a figure in profile on the right edge of the obelisk in *Graves of Ancient Heroes*, whose head's contour seems to have been transferred to the artful left edge of the grotto in *Harzhöhle*.

In his work *Potential Images*, Dario Gamboni categorizes such meta-discursive features as signals of a self-conscious grasp of the subjectively rendered object by the artist. What distinguishes these two heads from Leonardo's well-known scribbles or Dürer's crumpled pillows (aside from the fact that they are neither accidental nor a 'chronicle of movement') is that we are able, through the preparatory drawings and early oil painting, to chart their development from the real to the imagined – we witness their *becoming* in a way that Friedrich never intended.¹⁴⁵ Or did he? Perhaps Friedrich's subtle

¹⁴⁵ Joseph Leo Koerner, *The Moment of Self-Portraiture in German Renaissance Art*, (Chicago: UCP, 1993), p. 12.

recapitulation of the cave is a strategy meant to reveal both the fixed strata of his memory and the instability of his consciousness – the compounding of the two minds; a topic pondered in popular anthropological journals such as the *Archiv für die Physiologie, Zeitschrift für die Anthropologie*, and within G. H. Schubert's *Ansichten von der Nachseite der Naturwissenschaften*.¹⁴⁶ Certainly, Friedrich's friendship with the proto-analytical psychologist Carl Gustav Carus exposed him to Romantic ideas of conscious and unconscious remembrance and how these were impacted by the correspondences within the primordial mind as represented by the cave. In his *Psyche: Zur Entwicklungsgeschichte der Seele*, Carus claimed that rest in a cave would restore the health of the unconscious mind and the aforementioned Johann Jakob Engel presented a less than restorative view of a cave in his *Die Höhle auf Antiparos* (1801).¹⁴⁷ Engel portrays the cave as an inner world that sets the imaginative faculties into action and incites dramatic physiological responses. Engel, through the artifice of a conversation with a young nobleman, Herr von Millwitz, offers an encounter in the cave of Antiparos with one's own mind that both confirms and questions its knowledge. Things in the cave are not as they appear to be outside of it; a Neoplatonic and Kantian twist of reality.

A more constructive analysis of the two discovered heads may advance in the course of comparing these works with other types of cave illustration. As

¹⁴⁶ See Heusinger, 'Zwei Beobachtungen organischer Fehler des Gehirns bei Personen, die an der Nostalgie gestorben,' in *Zeitschrift für die Anthropologie*, vol. 1, no. 2, 1823, pp. 498-502 for an example of what are now considered to be eccentric methodologies of case studies of thought generation.

¹⁴⁷ Carl Gustav Carus, *Psyche: Zur Entwicklungsgeschichte der Seele*, (Pforzheim: Flammer und Hoffmann, 1846), p. 66. Johann Jakob Engel, 'Die Höhle auf Antiparos,' *Schriften*, vol. 1, (Berlin: Myliussichen Buchhandlung, 1801), pp. 41-66.

discussed earlier in this chapter, the exploration of caves during the latter part of the eighteenth century was a popular pastime for many Germans, especially natural scientists. One man had an especially keen interest in caves and published two volumes reporting his speleological interests. Johann Christian Rosenmüller published his *Beschreibung merkwürdiger Höhlen. Ein Beitrag zur physikalischen Geschichte der Erde* (*Descriptions of Strange Caves: A Contribution to the Physical History of the Earth*) in 1799 and published the second volume six years later in 1805. Most of the etchings illustrating the work are based on drawings by the author and a few were contributed by his co-author Wilhelm Gottlieb von Tilesius (1769-1859). In these two volumes, Rosenmüller describes the unusual features of several well-known and a few lesser-known show caves in Europe. He came to know these caves when he carried out research for his medical dissertation at Leipzig. Rosenmüller, as did Cuvier and Blumenbach, spent a great deal of time investigating the bear bones found in the caves in Germany – in fact, the previously mentioned *Ursus spelaeus* Rosenmüller, was named after him.¹⁴⁸ Plate VI in the first volume of Rosenmüller's tract on strange caves is an aquatint illustrating the *Adelsberger Grotte* (fig. 3.58). Rosenmüller names it the largest and most magnificent cavern in Europe with stalactites that resemble trees, humans, and animals.¹⁴⁹ Now in

¹⁴⁸ Stephan Kempe, Wilfried Rosendahl, Doris Döppes, 'The Making of the Cave Bear – Die wissenschaftliche Entdeckung des *Ursus spelaeus*,' *Mitteilungen der Kommission für Quartärforsch Österreichischen Akademie der Wissenschaft*, 14:89–106, Wien, 2005.

¹⁴⁹ Rosenmüller, p. 307. The German terminology for subterranea, *Höhle* and *Grotte* are not always interchangeable according to Adolf Schmidl in his *Wegweiser in die Adelsberger Grotte und die benachbarten Höhlen des Karst nach neuen Untersuchungen in den Jahren 1850-1852*, (Vienna, 1853). He makes a distinction between those cavities which have water running through them, formerly river channels, *Höhlen* and

present-day Slovenia and known as *Die Höhle von Postojna*, the Adelsberger cave used to be part of the Austrian Empire – it was visited by Austrian Emperor Franz I in 1818. The cave has been explored since the thirteenth century. It is easy to understand why since the natural entrance in the hillside is quite large and certainly would be hard for anyone in the vicinity to overlook. After Luka Čeč found previously unknown galleries whilst making preparations for the arrival of Franz I in 1818 and, other spelunkers continued to do so after him, the documented extent of the cave increased ten-fold so that visitors can now travel as far as five kilometres into the earth. Unfortunately, unlike the Harz Baumannshöhle, which had its own guide and guardian appointed from 1668, the fine surfaces of the Adelsberger cave have been marred by tourists carving their names into them and staining the delicate formations with unwieldy torches during their visits.¹⁵⁰

The unusual calcite formations and magnificent mineral ornamentation in the Adelsberger cave attracted new visitors who had read about them in the many travelogues reporting their existence. Of these formations Rosenmüller wrote:

Here our eyes feast on the wondrous. At the sight of forms which nature wrought through the petrification of water, various acts of

those in which only pools of water are to be found, *Grotten*. The latter usually has many more stalactites. This is nineteenth century nomenclature and is not found in modern speleology texts.

¹⁵⁰ Hans Jürgen Becker was the first guide. Stephan Kempe, 'The historical importance of the Baumannshöhle/Harz Illustrated by the report of Zückert (1763),' *Journal for Cave and Karst Studies of the National Speleological Society*, vol. 62 (April, 2000), p. 37.

crystallization and stalactite formation, our imagination deceives us with strange illusions.¹⁵¹

In the Rosenmüller image, two men are looking up towards the fantastical formations in the cave; one points with his walking stick and the other holds a torch aloft to illuminate the features. They are placed in the composition as *Rückenfiguren*, though without Friedrich-ian philosophical purpose. Plainly, they perform as gawping observers as the convention dictates for staffage in topographical prints; their function is to provide the viewer a sense of the awe inspired by the monumental scale of the subterranean spectacle. The features of the stalactites recede and emerge in the light of the flambeaux; dwarfing the two explorers. The medium of aquatint has allowed this effect. Aquatint enabled printmakers to re-create the tonal intricacies of water-colour and oil painting; and here it is used to superb effect even if the character of the drawing itself is somewhat naïve. The aquatint technique was adopted by printmakers who produced images for the trade in topographical views.

In England, water-colour painting was closely allied to topographical views – this was not the case in Germany where monochrome sepia drawings prevailed as chorographic studies of place. By the end of the eighteenth century, sepia drawings were in high demand. Professor Jakob Crescenz Seydelmann (1750-1829) introduced sepia to Dresden through his copies of the principal paintings in the Dresden Gallery. These expert ink drawings were used by engravers with

¹⁵¹ Hier weidet sich das Auge an den wundervollen, unsere Phantasie mit den abentheuerlichsten Bildern tauschenden Ansichten der Formen, welche die Natur durch versteinernes Wasser, durch mancherlei Kristallisationen und Tropfsteinbildungen hervorbringt. ‘(Rosenmüller, 1799, p. vii).’ It is worth noting that Rosenmüller references Kosegarten’s translation (*Reise durch Schottische Hochlande*) of Thomas Garnett (p. 323). In this passage, he draws the reader’s attention to the intersection of literature and caves.

which to make reproductive engravings of the paintings – aquatint was not used for this purpose despite its obvious affinity for tonal modulations. The artist Wilhelm von Kobell (1766-1853) did create aquatints after Dutch paintings in the Mannheim and Munich galleries. These are quite marvellous prints, rich in tone and meticulously executed (fig. 3.59 and 3.60). Andreas Bissel (1773-1847) followed Kobell's example and produced many fine aquatints after paintings in the Bavarian collections (fig. 3.61). Rarely was the medium exploited to create original works of art of high purpose. Used most frequently for book illustrations with sartorial or nautical themes, the aquatint technique adapted well to the subject matter of *Beschreibung merkwürdiger Höhlen*. Often, as in the case of several of Rosenmüller's images, the colour of the ink was altered to mimic the brown washes of sepia. For the printmaker who was not as accomplished as the masters of other intaglio medium, the visual conventions used by the etcher or engraver to document geological phenomenon above the ground are not as useful to represent certain subterranea where surface detail is obscured by the low level of light – thus, aquatint functioned well for communicating general impressions of the underground world. This fact, in addition to a certain pictorial plasticity, holds this intaglio technique distinct from all others when compared to the various methods of line engraving or etching.

The tonal 'drawing' of the aquatint was accomplished by the stopping-out of selected areas of the grounded plate followed by the exposure of the remaining copper to an acid bath. The stopping-out process was repeated over and over until the areas that the artist intended to be the darkest had been bitten deeply by the acid and a range of *grisaille* had been achieved at desired intervals of gradation. As a rule, the plate already had been line-etched in order to produce a

faint outline of the basic schema of the image. Close inspection of the surface of the *Adelsberger Grotte* reveals that broken lines were lightly etched under the aquatint. This line 'drawing' in the plate was used to guide the plate-maker as to where apply, with the aid of various sizes and shapes of brushes, an acid-blocking ground to the plate's surface. The technique created a painterly effect, clarifying forms through modelling of light and dark. This is the same basic process used by Caspar David Friedrich to craft his sepias. One of the first to consistently employ the newly invented graphite pencil (1790), Friedrich used the tool for his *in situ* sketches and studies but also to map out the under-drawing of the sepias.¹⁵² Traces of graphite marks are easily detected upon examination of the original works. In certain sepias, the paper has been punctured by the needle of a compass used to draw a circular feature; for instance, in *Moonrise on an Empty Shore* (1837) (fig. 3.62). I remind the reader that Friedrich began his career as a topographical draughtsman. The training he undertook to produce topographic drawings gave him practical knowledge that enabled him to view landscape as both a picture and a map. Svetlana Alpers points out that this presents art historians with a problem since in, 'the study of images, we are used to treating maps as one kind of a thing and pictures as something else.'¹⁵³

¹⁵² The German neoclassical artists, Tischbein, Hackert, Koch, and Reinhart, all preferred to draw with black and red chalks, ink, and sometimes used sepia with brush and pen; rarely did they use pencil. The artists that bridged the relationship between the Neo-Classicalists with the Romantics, Chodowiecki, Schadow and Wilhelm von Kobell, used chalks, ink, and graphite. See *The Romantic Spirit: German Drawings, 1780-1850, from the German Democratic Republic*, ed. Peter Betthausen, Werner Schmidt, Claude Keisch, Matthias Kuhn, (New York: Oxford Univ. Press, 1988).

¹⁵³ Svetlana Alpers, *The Art of Describing*, (Chicago: Univ. of Chicago Press, 1983), p. 124.

Friedrich's sepias are accomplished works of art not only because they demonstrate his technical prowess but also for the fact that, pictorially, they exist between the genres of topography, the picturesque, the emblematic and the real. Given the lack of acknowledgement of any type of organic interrelatedness between nature, landscape, and the figure in the academic drawing courses in Germany or Denmark at the end of the eighteenth century, it is even more amazing that he found such an intensely individual voice through his sketchbooks and sepias.

Returning once again to the present topic, the *Adelsberger Grotte* and Friedrich's *Harzhöhle*; we have, so far, established an analogous relationship between the tonally descriptive characteristics of aquatint and sepia wash. More intriguing, of course, is the inclusion of fantastical profiles in Friedrich's *Harzhöhle*. The aquatint, *Adelsberger Grotte*, displays similar visages; and one, directly above the torch-wielding man on the right, looks as if it could be a grimacing composite of the two stone shapes highlighted in our discussion of *Harzhöhle* thus far. The whole of the cave contains an inventory of gargoyle-esque projections from a helter-skelter form of Gothic architecture. The hall of the *Adelsberger Grotte* from this outlook appears to be structured similarly to the vaulted nave and side aisles of a medieval cathedral whose columns have metamorphosized into pillars covered, base to capital, with blasphemous encrustations. This subterranean chamber visibilizes the realm of the profane. It could just as well be the great hall in the palace of Hela, the Nordic goddess of the underworld of Niffelheim; occupant of 'the abode of anguish.'¹⁵⁴ Conceivably, this is the quintessential grotesque image – the phantasmagorical

¹⁵⁴ Oehlenschläger, xlviii.

setting brimming with implausible creatures exists below the surface of the earth, appears to have been ‘unearthed’ and, in the context of the volume in which it is located, it pictorially degrades the notion of scientific objectivity. Rosenmüller’s vision of the cave seems more inspired by Oehlenschläger’s *Gods of the North* or by the polymath, Athanasius Kircher, than by contemporaneous geological science. Athanasius Kircher’s *Mundus Subterraneus* (1665) documented an underground world that generated emblems on the surfaces of stones; proof, he surmised, that there is a secret hieroglyphic language of nature (fig. 3.63). The theory changed considerably during Friedrich’s age, however, some of Kircher’s fantastical, hieroglyphic imagery survived. This hieroglyphic concept was adopted as late as the mid-eighteenth century by Johann Georg Sulzer in his foreword to Johann Jakob Scheuchzer’s *Naturgeschichte des Schweizerlandes* (1746) – though Sulzer understood the marks to be evidence of earth’s remote past not a mysterious language.¹⁵⁵ Agricola’s *De natura fossilium* provides a system for classification divided into sections denoting minerals that in some way resemble other known bodies. This is further divided into categories of similitude based on either shape or mark – for instance; trunk-like, hail-like, horn, or moon-like in shape; star, fish, mountain, or eye-like in terms of the appearance of marks exposed in an interior surface. Again, contemporary geological theory eschewed the premise of Agricola’s system, however, shape

¹⁵⁵ F. X. Hoeherl, *J. J. Scheuchzer, der Begründer der physischen Geographie des Hochgebirges*, (Univ. Munich, PhD diss., 1901), provides a summary of his theories of natural history. His largest project the *Physica sacra* published between 1731 and 1735 contained 761 engravings that corresponded to scripture. His breadth of knowledge was reflected in the encyclopaedic nature of the project. Many the prints were pastiched from previous publications of Vesalius and Frederic Ruysch. Scheuchzer made the famous claim that he held the fossil record of a man who had drowned in the deluge.

won out over detail when it came to the appreciative spelunkers who noted the profiles of geological formations such as the Rosenmüller aquatint of the *Adelsberger Grotte* shows.

G. H. Schubert suggests we perceive this hieroglyphic language of Nature as a dreamer understands unfamiliar pictures in a dream.¹⁵⁶ He states that dreams are, in fact, a language that connects the unconscious to external events, ‘therefore; as soon as our mind speaks in dream language, it is able to make combinations that would not occur to us when awake; it cleverly combines the today with the yesterday, the fate of distant years in the future with the past ... dreams are a way of reckoning and combining that you and I do not understand; a higher kind of algebra, briefer and easier than ours, which only the hidden poet knows how to manipulate in his mind.’ This description corresponds with the cave scene in *Heinrich von Ofterdingen*, when young Heinrich finds a strange book written in an unknown language that he paradoxically comprehends the meaning of and realizes that it represents the future, past, and present.

At length he came across a volume written in a foreign language which seemed to him to have some similarity to Latin or Italian. He wished most fervently to know the language, for the book pleased him exceedingly, without his understanding a syllable of it ... he was startled and thought he was dreaming ... he hardly trusted his senses when soon after he discovered in another picture the cave, the hermit, and the miner ...yet those clothes were altered and appeared to be those of another age.¹⁵⁷

Without the usual reference points above-ground that humans utilize in order to register the passage of time and the boundaries of cultural space, the mental

¹⁵⁶ Gotthilf Heinrich von Schubert, *Die Symbolik des Traumes*, (Leipzig, 1862), p. 24.

¹⁵⁷ Novalis, *Heinrich von Ofterdingen*, pp. 90-91.

experience within a cave can be immensely disorientating and confusing; much like a bad dream.

Sophie Tieck Bernhardi von Knorring, poet, dramatist and the sister of Ludwig Tieck, explored this type of psychological dystopia in her novella, *The Old Man in the Cave*.¹⁵⁸ The tale revolves around the consequences following a young man's request of the hermit in a cave for 'the gift of seeing my own thoughts standing before me after I have crafted them, so that I might be able to judge what my soul is thinking and whether it deserves to be called good or evil, clever or naïve.'¹⁵⁹ Soon after his demand, he is confronted by a series of misshapen, monstrous replicas of himself; an imaginative warning from the hermit to deter the young man's desire for his thoughts to manifest in physical form. Amalie von Helwig's *Die Symbole* might have been Rosenmüller's favourite tale as it documented the tour of a young man by a young sorceress through a cave with remarkably female features. After following a hedge 'where flowering cypresses intertwined with wild cherries' he found himself at 'a row of sinuous gargoyles whose graceful gestures and expressions spoke to him of other, heathen times' – then he found himself suddenly in a narrow passage where he surrendered himself over to the wiles of his guide.¹⁶⁰ The reader

¹⁵⁸ Sophie Tieck Bernhardi von Knorring, 'Der Greis im Felsen,' *Bambocciaden*, pt. 3, (Berlin: Friedrich Maurer, 1800), pp. 149-80.

¹⁵⁹ Excerpt from Sophie Tieck Bernhardi von Knorring, 'Der Greis im Felsen,' in *The Queen's Mirror, Fairy Tales by German Women, 1780-1900*, ed. and trans. Shawn C. Jarvis, (Lincoln and London: Univ. of Nebraska Press, 2001), p. 78.

¹⁶⁰ Amalie von Helwig, 'Die Symbole,' *Die Sage von Wolfsbrunnen, Märchen*, (Berlin: Realschulbuchhandlung, 1812), pp. 35-52, (trans. Shawn C. Jarvis, from *The Queen's Mirror*, pp.119-120).

understands where the tale goes from there. Several years after publishing the tale, Helwig reviewed Friedrich's work in 1826 in the *Berlin Kunstblatt*.¹⁶¹

The formations in the *Adelsberger Grotte* that have been wildly exaggerated by Rosenmüller are not pictured as a geologist would have described them but as a psychologist might have illustrated what the enthralled spectator *thought* he saw. The aquatint envisages the distorted inner vision of an awestruck psyche rather than what was really there.

All at once, we become aware of thousands of objects that demand our complete attention. Strange objects exist in raised relief; many we mistaken for works of art. Here beside the bones of forgotten creatures where eternal night and deathly silence prevail in these gruesome vaults; where having left the realm of the living and standing at the gates of the eternity and Elysium, we abandon ourselves to the illusions of fantasy – it is perhaps pardonable, compelled by fear and lack of control over our reaction to these objects, we feel a need to abscond.¹⁶²

Rosenmüller's passage sounds less like the report delivered by an empirically inclined scientist than the description of a bewildering dream. Yet, the amateur

¹⁶¹ Amalie von Helwig, 'Ausstellung zum Besten der Griechen,' *Kunstblatt* 7, Berlin, 1826, p. 360. The paintings reviewed were *Auf am Segler*, *Hermitage* and the *Hochgebirge*, Nationalgalerie, Berlin.

¹⁶² 'Kurz, wir werden tausend Gegenstände gewahr, die theils durch die täuschende Aehnlichkeit mit Werken der Kunst, theils durch ihre eigene erhabene Organisation unsere ganze Aufmerksamkeit rege machen. Dann ist es verzeihlich, wenn wir hier in diesen grausenden Gewölben neben den Gebeinen vergeßener Geschöpfe, wo ewige Nacht und Todesruhe herrscht; wenn wir da, losgerißen von dem Reiche der Lebendigen, uns den Bildern der Phantasie überlassen, uns an den Pforten der Ewigkeit und des Elysiums wähen, bis uns andere Bedürfniße, vielleicht auch Angst und Entfeßen von diesen Gegenständen hinweg drängen.' Johann Christian Rosenmüller, *Beschreibung merkwürdiger Höhlen. Ein Beitrag zur physikalischen Geschichte der Erde*, vol. 1, (Leipzig, 1799), pp. vii-viii.

speleologist was a highly accomplished surgeon and anatomist. His anatomical speciality was the skeletal structure of the skull; particularly the nasal and orbital regions. His medical specialties were the nasopharynx complex and the female reproductive system. Rosenmüller was a man who was fascinated with cavities, channels, and orifices of all shapes and scale; it didn't matter whether they were found in the earth or within a human; for the anatomist, an interior space is the site for exploration and experimentation (fig. 3.64).

Johann Christian Rosenmüller entered the University of Leipzig in 1786, receiving Master's degree in 1792. He subsequently studied in Erlangen and was awarded a degree in 1794 and a medical doctorate at Leipzig in 1797. By all accounts he was an extraordinarily intelligent man. There is no evidence that he was prone to fantasy or unstable behaviour. Most scholars of the history of medicine are aware of his academic publications. He is considered one of the founders of neuroscience and an expert on the laryngeal function. He translated and revised John Bell and Charles Bell's monumental *The Anatomy of the Human Body* in 1805.¹⁶³ He edited the dense *Handbuch der Anatomie des menschlichen Körpers: zum Gebrauch der Vorlesungen*; his treatise on the external parts of the human eye is introduced by an extensive annotated bibliography of close to two-hundred works on the subject and the copperplate engravings illustrating this book are from his own drawings.¹⁶⁴ Rosenmüller

¹⁶³ John Bell and Charles Bell, *The Anatomy of the Human Body*, 4 volumes, Edinburgh, Cadell & Davies, 1797-1804. German translation and revised German edition by Johann Christian August Heinroth (1773-1843) and Johann Christian Rosenmüller (1771-1820) in 2 parts, Leipzig, 1805, 1807.

¹⁶⁴ *Handbuch der Anatomie des menschlichen Körpers : zum Gebrauch der Vorlesungen*, ed. J. C. Rosenmüller, (Leipzig : K.F. Köhler, 1828). The treatise on the

skilfully illustrated many of his published anatomical texts. His interest in drawing led to his authorship of *Prodromus anatomiae artificibus inservientis* (1819) in which he outlined a course of anatomy for printmakers and sculptors, although the pamphlet itself was never published.¹⁶⁵

Rosenmüller's interest in the larynx and the brain reflects the broad trend found within eighteenth-century comparative anatomy to attempt to resolve the apparent lack of function in the vocal organ in the simian species and its use by the human; also, they were baffled as to the reason that no major cerebral structure seemed to be unique to the human. Two anatomical structures were named after the amateur speleologist: *Rosenmüller's Fossa*, the nasopharyngeal recess located at the back of the throat behind the torus tubarius, an auditory tube, and *Rosenmüller's organ*, the epoöphoron, a vestigial structure associated with the ovary, appearing rather like tiny canals near the ovary that resemble interconnected tubes and ducts. Other speleologically-derived eponyms for

human eye entitled *Partium externarum oculi humani imprimis organorum lachrymalium descriptio anatomica iconibus illustrate*, (Leipzig: S. Linck, 1797). His studies on the cave bear were included in Johann Christian Rosenmüller, *Quaedam de ossibus fossilibus animalis cujusdam, historiam ejus et cognitionem accuratorem illustrantia, ... ad disputandum proposuit*, (Leipzig, 1794). His inaugural dissertation is *Organorum lachrymalium partiumque externarum oculi humani descriptio anatomica. Dissertatio inaugurali*, (Leipzig: Kramer, 1797). Two additional volumes on caves by Rosenmüller are *Abbildungen und Beschreibungen merkwürdiger Höhlen um Muggendorf im Bayreuthischen Oberlande. Erstes Heft, Beschreibung der Höhle bey Mockas*. L.P. (Erlangen, 1796.) *Abbildungen und Beschreibungen der fossilen Knochen des Höhlenbären. Description des os fossiles de l'Ours des Cavernes. Germ. & Fr.*, (Weimar, 1804.)

¹⁶⁵ Ludwig Choulant, *Geschichte und Bibliographie der Anatomischen Abbildung nach ihrer beziehung auf Anatomische Wissenschaft und Bildende Kunst*, (Leipzig: Rudolph Weigel, 1852), p. 353.

anatomical features coined in the eighteenth and nineteenth century that are still in use include: Meckel's cave, the *cavum trigeminale* located in the skull and named after the Göttingen physician and anatomist Johann Friedrich Meckel (1724-1774) and, the cave of Retzius, *cavum praeperitoneale Retzii*, a retropubic space located in the vaginal passage and named for Anders Adolf Retzius (1796-1860), the Swedish anatomist who specialized in cranial structures.¹⁶⁶ The two foremost, and perhaps most miraculous cavities found within the human being are the skull and the uterus. The physiologist Joseph Görres (1776-1848) called the brain the *Zentralwelt im Organismus*.¹⁶⁷ He adopted the romantic elliptical model for his theory on the orderly interrelationship between human organs based on their inherent qualities of interiority or exteriority.¹⁶⁸ The brain is an organ that perceives interiority. The uterus is an interior space. Both are in essence, generative organs; one produces thought and the other, engenders life. It is easy to imagine that Rosenmüller, far from being terrified, had many *a-ha* moments when spelunking through a cave.

In German Romantic science, the language of analogy and metaphor dominated discourse and this circuitous course between language and object often dissolved theoretical boundaries within the sciences – and, in a Schellingian philosophical sense, it changed the way thinkers imagined the confines of the human mind. According to Schelling, philosophy is the Natural

¹⁶⁶ Johann Friedrich Meckel, *Tractatus anatomico physiologicus de quinto pare nervorum cerebri*, Göttingen, 1748.

¹⁶⁷ James Hillman, *The Myth of Analysis: Three Essays in Archetypal Psychology*, (Evanston: Northwestern University Press, 1998), p. 149.

¹⁶⁸ Joseph Görres, 'Prinzipien einer neuen Begründung der Gesetze des Lebens durch Dualism und Polarität,' *Allgemeine medicinische Annalen*, 1802, cols. 241-79, 561-81.

History of our mind and, 'there is no longer any separation between experience and speculation. The system of Nature is at the same time the system of our mind ... once the great synthesis has been accomplished, our knowledge may return to analysis (to research and experiment).'¹⁶⁹ Based on Schelling's understanding of consciousness, Johann Christian Reil (1759-1813) in his *Rhapsodien* hypothesized that mental illness resulted from the fragmentation of self which occurred when the imaginative faculty of the mind did not achieve a balanced synthesis with Nature.¹⁷⁰ The deepest centres of the human brain in the cerebral cortex, the *islands of Reil*, were named after him.¹⁷¹ Reil dug deep into human anatomy to understand the human mind and came to the conclusion that the advances of modern society were responsible for most of the imbalances in human mental states. Caspar David Friedrich was neither a psychologist nor a conventional philosopher; however, I would argue that he operated as a conductor in the midst of Schelling's *great synthesis* of the systems of Nature and the Mind, manoeuvring between the two through his experience of memory and visual elocution. His *Harzhöhle* sepia is grotesque; perhaps, a documentation of the imbalance between the state of the collective human psyche and nature. Friedrich located not an entry to inner-space but an enclosure. His method of composing a space that appears to be far 'under' the horizon, without reference to surface and only to edges creates the feeling of envelopment. We

¹⁶⁹ Friedrich Wilhelm Joseph von Schelling, *Ideas for a Philosophy of Nature*, trans. Errol E. Harris and Peter Heath, (Cambridge/New York: Cambridge Univ. Press, 1988), p. 30.

¹⁷⁰ Robert J. Richards, *The Romantic Conception of Life*, (Chicago: CUP, 2002), p. 263.

¹⁷¹ Johann Christian Reil, *Exercitationum anatomicarum fasciculus primus. De structura nervoru*, Halle, 1796.

are not barred from entry into the cave, we have already arrived inside. This *sepia* describes not a topography of surface, rather the notion of a geodic cavity; an interior.

The opposite, in terms of spatial location, of a *Gipfelerlebnis* is a *Höhle-erlebnis*; both share an experiential affinity to one another. From the highest point to the deepest abyss, the vertical axis of these combined experiences encompasses a spatial typology of knowledge. On the mountaintop, mysteries are both protected and uncovered by light. In the underworld, secrets are both obscured by and revealed in the darkness so – that which is above is like that which is below, and, that which is below is like that which is above; the analogy of space. The voyage downwards adds a new dimension to the act of knowledge. It is both figuratively and physically, a spatial depth of knowledge. The summit-experience emphasizes one's own sense of interiority and the cave-experience embodies it. An essential difference between the two is that in the underworld, lacking the benefit of light from *without*, the rationality of our mind *within* is tremulous; it signals the lapse of reason. The cave-experience becomes so extraordinarily subjective, that one no longer is aware of the boundary between interior of self and the interior of the earth. The antithesis of an *enlighten*-ed journey to the summit, the subterranean voyager finds his or her identity in a bathetic relationship to self.

7. Threshold to Mythologized History

At the start of this thesis, I noted that Friedrich arranged the compositions of the *Vault* and the *Hut* so that the viewer is brought directly to the threshold of each

of the represented spaces. There are no conventional framing devices that hold us at a distance from the apertures. Just as he did in the *Monk by the Sea*, Friedrich ‘cuts away our eyelids’ leaving us nowhere to retreat except back to the world from whence we came.¹⁷² Because we are momentarily within the world of the objects themselves, whose allegorical nature by its very definition is without limitation, we are positioned at the contradiction of the imagined and the real. The painting, *Monk by the Sea*, however, exists on a horizontal rather than vertical axis. A horizontal axis expresses the domain of time, not space. It is the world of the past and the future; its symbols, therefore, are archetypal in configuration.

The harrowing description of the cave that I have quoted from Rosenmüller is the result of an encounter with the grotesque. Hegel portrayed the earth as ‘the giant corpse of the life which was formerly immanent in it but has now fled.’¹⁷³ A more pleasant description is Goethe’s, ‘fertile, beautiful valleys, across persisting graves [*Über den Granit*].’ Rosenmüller, however, imagined the earth in terms closer to Hegel’s corpse. In plate five, *Inneres der grossen Höhle von Alcantara ohnweit Lissabon*, the view could just as well be the prospect one would see when looking out from inside the nasal cavity of a giant towards the light entering his head by way of the hollows of the two nostrils (fig. 3.65). Rosenmüller tells his reader that he entered the cave through one of the two large openings and continued into the large hall into the channel, past large vertical structures leading to smaller chambers which penetrate even deeper tunnels and,

¹⁷² Heinrich von Kleist, *Berliner Abendblätter*, vol. 12, col. 13, 13 October, 1810.

¹⁷³ Hegel, ‘Section Three: Organics,’ *Philosophy of Nature: Part Two of the Encyclopaedia of the Philosophical Sciences (1830)*, trans. A. V. Miller, (Oxford: OUP, 2004), p. 298.

it is not much of a leap to draw an analogy between cave exploration and a cranial examination – peering into the mouth of a cadaver and seeing the uvula at the back of the throat, the anatomist would then spy the windpipe as it divides off from the central channel, and the epiglottis which, in a dead man, no longer functions as a trap that opens or closes depending on whether the organism required air or the action of swallowing. The mineralogist Franz von Kobell (1803-1882) in his *Skizzen aus dem Steinreiche* (*Sketches from the Mineral Kingdom*, 1850) informs the reader that the Baumannshöhle in the Harz was known for its unusual stalactites that a natural scientist had suggested were the windpipes of fossilized skulls, although Kobell did not name the individual.¹⁷⁴ If the reader could imagine for a moment that you are within the absurd dream sequence of an anatomist; you enter the *Liebensteiner Höhle* and might discover evidence of a small foetus beginning to form in the likeness of a human in the cavity of the cave (fig. 3.66).¹⁷⁵ Or; upon arrival at the *Eingang in die Grotte von Antiparos* (and continuing the journey in the vein of the ‘anatomist-

¹⁷⁴ Wolfgang Franz Xaver von Kobell, *Skizzen aus dem Steinreiche. Geschrieben für die gebildete Gesellschaft*, (Munich: 1850), p. 299.

¹⁷⁵ This cave was discovered when a road was excavated. A labyrinth of caverns reached for many meters; the walls were covered with a black loam and this more than likely explains the deep darkness of the image. Rosenmüller reprints a letter from *Die Zeitung für die elegante Welt* (no. 9, 1802) to describe the remarkable qualities of the cave in his section on the Liebensteiner Höhle (Rosenmüller, p. 236). The frontispiece of this ZEW issue is an etching view of the Liebensteiner Höhle drawn by ‘Thierry’ and etched by Senff of Dresden. The letter and image in this type of popular periodical is further evidence to support my contention that nearly all German readers were informed of the cultural phenomenon of cave exploration. It is also interesting to note that the 1802 issue of ZEW also announced the winner of the second annual Friends of Art award that Friedrich received the fifth and final year of the competition. 1802 is the year that *Heinrich von Ofterdingen* by Novalis was published.

nightmare'), it might be possible to imagine being the groom who, having arrived at the conjugal bed after the ritual of marriage, has found himself at the hedge outside of the cave described by Amalie von Helwig in *Die Symbole* (fig. 3.67). Unfortunately for the imaginary groom, others seem to have arrived first. The *Eingang in die Grotte von Antiparos* etching in the Rosenmüller volume is a charming, albeit clumsy copy of an engraving by J. B. Tilliard from *Voyages pittoresques de la Grèce*, 1782 (fig. 3.68).¹⁷⁶ The German copy after a French original provides further evidence of the trans-continental preoccupation with cave exploration.

After entry into the cave at Antiparos, one enters a large cavern then, having advanced only a short distance, notices that there are steep precipices leading down to a dark abyss. Only by using ropes and ladders with which to make a descent, will one see the world-famous stalactites. William Wordsworth compares the great hall reached by ropes as a great, lifeless book:

With torches passed into some vault of earth,
The grotto of Antiparos or the den
Of Yordas among Craven's mountain tracts;
He looks and sees the cavern spread and grow.
Widening itself on all sides, sees, or thinks
He sees, erelong the roof above his head,
Which instantly unsettles and recedes –
Substance and shadow, light and darkness, all
Commingled, making up a canopy
Of shapes and forms and tendencies to shape
That shift and vanish, change and interchange
Like spectres, ferment quiet and sublime
Which after a short space works less and less,
Till, every effort, every motion gone,
The scene before him lies in perfect view,
Exposed and lifeless as a written book.¹⁷⁷

¹⁷⁶ *Grotto du Antiparos*, Plate 36 of M.G.A. Choiseul-Gouffier, *Voyages pittoresques de la Grèce*, vol. 1, 1782.

¹⁷⁷ William Wordsworth, *Thirteen-Book Prelude, Book VIII*, lines 712-27.

Wordsworth continues in *Book VIII* by describing an underground world much like that articulated by Rosenmüller visually through in his aquatint of the *Adelsberger Grotte*:

... The senseless mass,
In its projections, wrinkles, cavities,
Through all its surface, with all colours streaming
Like a magician's airy pageant, parts,
Unites, embodying everywhere some pressure
Or image, recognized or new, some type
Or picture of the world; forests and lakes,
Ships, rivers, towers, the warrior clad in mail,
The prancing steed, the pilgrim with his staff,
The mitred bishop and the throned king –
A spectacle to which there is no end.¹⁷⁸

The innate quality of interiority that exists in the chamber of a cave makes it the ideal setting in literature for dreams, psychological crises, and anatomical metaphorization. Hans Blumenberg describes the very sense of hesitancy that Rosenmüller expresses about remaining in the *Adelsberger Grotte* as he, 'attempts to outline the ambivalence about the cave: It invites one to stay, and it forces to one leave ... It is the dislike of the 'real reality' the prehistoric as well as the mythical-metaphorical inhabitants of a cave share with each other.'¹⁷⁹

Caspar David Friedrich studied the opening at the *Marmorbruch* grotto over and over again. Firstly, during his own physical experience of looking at the fissure; then in a pencil sketch, followed by an ink wash, an oil painting, another oil painting, and finally, through the execution of the *Harzhöhle* sepia. Clearly, based on the late paintings completed from drawings made twenty or thirty years before, Friedrich possessed an extraordinary memory. Did he imagine he saw

¹⁷⁸ Wordsworth, lines 731-41.

¹⁷⁹ Hans Blumenberg, *Höhlenausgänge*, pp. 799-801.

faces in the rock the first time he laid eyes on the sight in 1811; does he remember that vision every time he returns to the original sketches? Or, do the hidden faces come into focus within his mind as he paints *Graves of Ancient Heroes*, and he chuckles to himself whilst he lays the mental picture aside and finishes the composition without succumbing to the fancy – that is, until later when he paints the sepia? By composing variations on the memory of his original experience, Friedrich operates within the domain of the spirit, Hegel's *mind*.

Friedrich has contemplated the memory of the Marmorbruch and discovered a world within the truth of what he originally saw. This new depth of vision is a hermetic act of knowledge achieved through a type of recall that is defined by Henri Bergson as a memory that is a progression from the past to the present, rather than a regression from present to the past; a mythologico-consciousness of self.¹⁸⁰ The *Harzhöhle* is the outcome of a mental synthesis that operates on the superimposed planes of memory, time, and cognition. For Hegel,

it is precisely the task of a speculative interpretation of consciousness to develop the thinghood *in terms of* this and in turn to develop the thinghood of perception into the object of understanding, an understanding which *thinks* the thing as substance, causality, and reciprocity – as relation.¹⁸¹

The Hegelian cave-experience portrayed by *Harzhöhle* is what Jean-Luc Nancy expresses as a *trembling*, 'thought must take the self out of itself; it must extract it from its simple being-in-itself; thought is itself such an extraction ... On the other hand, this shattering of compactness: it inhabits it, works it over, unsettles

¹⁸⁰ Henri Bergson, *Matter and Memory*, trans. N. M. Paul and W. S. Palmer, (London, 1911), p. 319.

¹⁸¹ Martin Heidegger, *Hegel's Phenomenology of Spirit*, trans. Parvis Emad and Kenneth Maly, (Bloomington: Univ. of Indiana Press, 1994), p. 105.

it *in itself*.’¹⁸² Friedrich’s thoughts as he created the sepia have collided with those thoughts represented by his memory of the object of his attention. This collision results in the hermetic concealment of inner sight.

View from the Artist’s Studio, Right Window (1805-06) provides an early example of the artist’s obscurement of a face in sepia; of course, it is his own reflection looking out from the mirror and it is hidden in plain sight (fig. 3.69, detail). Friedrich hid himself in the pendant *View from the Artist’s Studio, Left Window* by absenting his reflection in the mirror; a dialectical path of his own mythological truth. ‘To conceal with light; the Greek specialty,’ wrote Roberto Calasso remarking on the power of the Gods to secrete in bright sunlight.¹⁸³ Once again, I propose the *View* sepias are not emblems of death, but of life; the conscious and unconscious human mind. In the mirror in the *View/Right-Side*, only the top of his head and his eyes are visible, and upon making eye contact with the light-borne replica of the artist, the viewer has a sense of disquiet. We are looking at the artist looking at himself; ‘the moment when consciousness observes itself,’ the extremities of the visionary and the vision.¹⁸⁴ The eyes reflecting eyes encapsulate and interiorize the act of seeing inside the mind. The exclusion of the other sensory organs, his ears and mouth, emphasizes the act of vision. It also parallels the absence of the same in the two heads of the *Harzhöhle*; thus, the cave’s stony selves have no voice and, are deaf to any sound. No apertures are been drilled into the schematic of their eyes. It appears

¹⁸² Jean-Luc Nancy, *Hegel: The Restlessness of the Negative*, trans. Jason Smith and Steven Miller, (Minneapolis/London: Univ. of Minnesota Press, 2002), p. 40.

¹⁸³ Roberto Calasso, *The Marriage of Cadmus and Harmony*, trans. Tim Parks from *Le nozze di Cadmo e Armonia*, (London: Random House, 1994), p. 282.

¹⁸⁴ Calasso, p. 210.

that there are not any cavities within their heads at all. They are flattened and diagrammatic. The natural setting, however, is dimensional. Although the represented space is shallow, the depth of what is within the cave makes its presence felt. Odd, since this perceived presence is, in fact, a void. Hegel states that thought, 'in so far as it takes time and belongs to the immediate individuality, has a corporeal manifestation, is felt, especially in the head, in the brain, in general in the system of sensibility, of the simple general inwardness of the sentient subject.'¹⁸⁵ In 1835, Friedrich made the choice to surreptitiously ensconce the stone heads that only existed in his thoughts in *Harzhöhle*, although he had not yet done so in any other image of the site since he had first visited the Marmorbruch nearly a quarter-century before. As in the case with most interpretations of his work, we can only speculate as to the reason for their late appearance. There are clues, however, to be found in the differentiation in the figuration of each of the two heads.

The head in profile against the dark recess of the grotto, is comedic; certainly gargoyle-esque, especially when its features are compared to those of its smaller counterpart. Its brow is in a classic arc of uncertainty; the eyes look upward in a submissive gaze. The rock feature surrounding the face could be read as a monk's cowl. The narrow parabolic shape that moves downward from his cheek could be the feature of a mutton-chop sideburn – perhaps, a self-deprecating portrait of the artist (fig. 3.70). Overall, it has a Medieval rather than a nineteenth-century appearance. The image embedded in the rocky, right-side of

¹⁸⁵ Hegel, 'Section 401 of the *Zusätze*,' *Philosophy of Mind: Part III of the Enyclopaedia of Philosophical Sciences*, trans. William Wallace, (London: Oxford Univ. Press, 1971), p. 85.

the cave, however, possesses a far more classical manner. The profile is less particular and more generalized in its appearance. Its abstract design is fashioned in a motif similar to one that would be found upon a decorative urn or as a carved architectural feature within a garden; and the figure seems less an artful Apollo than a resolute Ares. Perhaps the inscriptions embedded within the painting for the *Graves of Ancient Heroes*, offer another clue; in aggregate, they read:

Rest in peace, redeemers in distress – Dedicated to the noble
fallen ones from freedom and justice – F. H. K. – Arminius –
Noble young saviours of the fatherland.¹⁸⁶

In *Harzhöhle*, the tombs in *Graves of Ancient Heroes* are gone, or more likely, they have not yet been erected at the Marmorbruch. There is no sign of a beaten path to the mouth of the cave and its moments are not measured in geological or even historical time, rather in mythological time. This image of the cave is a composite remembrance of an earlier epoch *and* a disappointing present; the time before Arminius when bears still roamed the Teutoburg Forest, the marble of the Marmorbruch had not yet been quarried, and the service of heroes was not yet required; no Varus to defend against – *and* the time after the Napoleonic Wars. Sadly, near the end of his life, Friedrich believed the time of heroes had passed. This pessimism was not because he did not perceive the cultural need for a hero, but because the demand for a real-heroic presence was negated by the State. Johann Christian Reil stated that, ‘the mind in self-consciousness, rolls up the immeasurable thread of time into a ball, reproduces the long-dead centuries, and gathers into the miniature of one representation mountain ranges, rivers, woods,

¹⁸⁶ ‘Des edel Gefallenen fuir Freiheit und Recht. F.H.K. Edler Jüngling Vaterlands-Erretter,’ in K. K. Eberlein, *Caspar David Friedrich der Landschaftsmaler*, (Bielefeld and Leipzig, 1940), p. 25.

and the stars strewn through the firmament,' – and, Reil believed that if this mind fails because the pressures of the modern age have disrupted the process of Schelling's synthesis of mind and nature, the world becomes incoherent and one cannot distinguish between reality and fantasy.¹⁸⁷ Therefore, the absence of human activity in the *Harzhöhle* is not a sign of Edenic harmony, rather it is mythological dystopia. Friedrich, in the words of Hans Blumenberg which he used to describe myth, has placed, 'the monstrous as something that is far in the past and has been forced back to the edge of the world.'¹⁸⁸ Friedrich transformed the cave into a Promethean depth in order to conceal a Blumenberg-ian unbearable truth.¹⁸⁹ The grotesque form looks up out of the cave towards its inadvertent companion and the classical figure turns his head away from the abyss with his eyes cast downward; an ancient dialectic. The figures from the past ages cannot meet the gaze of the other. This is a devastating work.

Caspar David Friedrich returned to his oil painting, *A Vault* through the medium of sepia sometime within the years 1835-37. The underlying theme of nearly all the sepia drawings during this late period was passage; through a gate or a wall, out of a window, into or out of a cave; passage of the moon over the horizon or of a former life in burial. The simple interpretation is to categorize all of these as allegories of death. It is far more difficult to recognize them as thresholds to *different* realities on or into Earth. Friedrich, who toiled from the spot of his own reception in the emphatic dialectic of the Romantic age, presented us, in his later life: worlds of the mind – of inner and outer vision;

¹⁸⁷ Reil, *Rhapsodien*, p. 55. (translation from Richards, 2002, p. 268.)

¹⁸⁸ Blumenberg, *Work on Myth*, p. 26.

¹⁸⁹ Blumenberg, *Work on Myth*, p. 110.

worlds of time – historical or geological, classical or medieval, past or future; worlds of subterranean space – caves or graves or underground mines. The journey from above to below the earth's surface cannot be accomplished by the same means which energetically propagated light finds its way in. We are meant to enter these worlds through naturally and artificially constructed channels; spaces of absentment. The Germanist, Alice Kuzniar speculates that according to his aesthetic theory, a Romantic could present a blank canvas as the ideal landscape painting.¹⁹⁰ She notes that Schelling sees the genre as being capable of conveying non-representational ideas through the 'veiling of ideational content.'¹⁹¹

In the passage from which Kuzniar draws this concept, Schelling goes on to say that landscape painting is merely schematic and inherently formless thus revealing the invisible world of ideas to the viewer.¹⁹² Scholars have noted, and Alice Kuzniar is amongst them, that Romantic landscape is akin to Romantic music in their shared modes of abstraction. There is, however, another abstract-oriented practise that Schelling claims to have an affinity with landscape painting – architecture. In *Addendum 1* to section 117 of 'Constructions of the Forms of Art' in his *Philosophy of Art*, Schelling states that harmony is the prevailing capacity of both architecture and landscape painting. He declares this to be true because harmony is both ideational and allegorical. By placing those hidden fragments of architecture within *Harzhöhle*, Friedrich invests the landscape with abstracted human presence through the relics of cultural production, allowing the

¹⁹⁰ Alice A. Kuzniar, 'The Vanishing Canvas,' *German Studies Review*, vol. 11, no. 3, 1988, pp. 359.

¹⁹¹ Kuzniar, p. 362.

¹⁹² Schelling, p. 145.

allegorical to meld with the ideal thus completing and initiating a cycle of mythological reality. Like mythology, it is an act of recycling modelled on the formative mechanisms found in the depths.

III. Physio-philosophical Topography

‘The idea we have of a soul has much in common with that of a magnet under the earth. It is merely an image. To picture everything in such forms as this is an inborn inventive faculty in man.’¹

Georg Christoph Lichtenberg (1793)

In light of the topic of subterranea, this part of the thesis will specifically consider how the issue of the schematization of remote-place identities which have been plotted in prints and given context in travel literature and the evidence of the mobility attendant on the artist who visits these culturally constituted places may be tracked across Friedrich’s work, other artistic productions and material culture. In particular, I suggest a causal relationship of a selected body of Friedrich’s work with travel manuals, artists’ contributions to technical journals and mining literature, and cartographic panoramas.

In the form of a case study, I will first look at a series of drawings and watercolours, and the paintings based on these works, made by Friedrich that I assert are indicative of the artist’s fascination with the vertical dimensions of the earth. I suggest that these works are expressed in the nomenclature of a geographic visual culture. The second part of the chapter will examine two paintings from 1818, *Wanderer Above the Sea of Fog* and *Woman Before the Setting Sun*, that present a more nuanced view of Friedrich’s reception of vertical

¹ Georg Christoph Lichtenberg, *The Waste Books*, trans. R. J. Hollingdale, (New York: New York Review of Books, 1990), p. 149.

rapport through an implicit oscillation between the two figures that are positioned at opposite elevations of altitude and infer a meta-structure of nature's ups and downs. I will view these paintings as models of the subjective relationship of self and nature in a broader cultural context linking them with the work of the natural scientist Lorenz Oken, and set my argument in the Harz Mountains of central Germany.

1. The Source at the Surface

A drawing by Caspar David Friedrich in the Dresden Kupferstichkabinett depicts a wanderer on his way upon the road to the Riesengebirge mountain range. Granite blocks stand upright along the route, performing as markers on the long side of the bend in the road (fig. 4.1). On the rolling terrain of the foothills, the stone objects signal post-wagon drivers of the presence of a hard-to-see turn just at the crest of a low hill and count out a stage of distance along the route. The post-wagon was not the most pleasant way to travel in Germany. They were poorly ventilated and notoriously slow, travelling at speeds up to, but never beyond, to 3 mph or 5 kph. Their design was hopeless; the carriage's baggage compartment was located just under the passenger seating where the 'flooring projects from far above the axle of the hind wheels, equal to length and breadth to all rest of the vehicle.'² Each time a parcel was delivered or a passenger disembarked, the entire wagon had to be unloaded and then reloaded in order to balance the cargo and prevent the clumsy vehicle from toppling over whilst

² Almost every travelogue mentions the inconvenient, uncomfortable, and inefficient German post-wagon. Alexander Gordon, *Travels in Germany and the Illyrian Provinces, etc.*, (Dublin: P. Hayes, 1828), p. 97.

moving. Those who could afford it would hire a private four-wheeled coach with two horses and a driver (fig. 4.2, Wilhelm von Kobell, *Postilion with Travelling Coach in the Fog*, 1798).³ For mountain journeys, a third horse was added, the weight of the baggage was redistributed to the coach box, and the driver would ride one of the draft-horses. Even this alternative mode of travel could be immensely uncomfortable and some chose simply to walk. When Friedrich took his wife, Caroline née Bommer to visit Greifswald for the first time, they walked on foot for the entire 85 kilometres from Neubrandenburg to his homeland. They had simply wearied of the coaches.

The fine lines which describe the contours of all animate and inanimate objects in *Riesengebirgslandschaft mit Schneekoppe und Wanderer* are graphite. The horizontal register in the centre is defined by a delicate blue water-colour wash that serves to demarcate the shape of the distant mountains and, continues below them, becoming more transparent as the blue spreads in close proximity to the top edge of the pathway. The foreground occupies fully one-third of the composition and the majority of this is occupied by a field of grass that borders the road. The breadth of the road opens up across over one half of the bottom edge of the drawing and narrows as it steers to the right before it twists abruptly to the left. A fine grey wash of a varied tonal range defines the features in the foreground. The solitary figure walking along the route is probably the painter, Georg Friedrich Kersting, friend and travelling companion to Friedrich on their walking tour of the Riesengebirge in the summer of 1810. Kersting appears over and over again in the sketches Friedrich made during the journey; leaning on a

³ Hinrich Sieveking, *Fuseli to Menzel: Drawings and Watercolors in the Age of Goethe*, (Munich and New York: Prestel, 1998), p. 168.

rail fence, disappearing behind a stand of trees, standing beneath a large boulder, sitting atop a large boulder, and resting at the *Elbquelle*, the source of the Elbe (figs. 4.3, 4.4, 4.5, 4.6, and 4.7). In each of these drawings, the human figure is small in relation to the natural world through which he wanders. From these sketches only the latter is known to have been used as a source for later paintings; and these are a watercolour completed twenty years later in 1830, *The Source of the Elbe in the Riesengebirge* and an oil, *In Memory of the Riesengebirge* (1835) (fig. 4.8 and 4.9).

In his homage to the source of the Elbe, Friedrich makes an emphatic gesture to divide the waters below the surface from the clear air above. This partitioning of height from depth is defined through the striking contrast between the translucent pinnacles and the dense green of the mountain meadow. There is not much evidence of the river here. The appearance of moisture glistening is but the vaporous mists that materialize from the mountain crevasses not the water exiting from below. After having left the spring, a small lozenge shaped area of water appears, reflecting the sky and the grasses at its edge. The reflective surface of water is, paradoxically, a barrier of light. It veils what is below and reflects what is above. The source itself is defined by a dark hole below a stack of stone blocks. Jean André de Luc describes how the Elbe, ‘issues forth from the foot of a heap of granite debris,’ in his *Geological Travels* (1813).⁴ Friedrich

⁴ Jean André de Luc, *Geological Travels in Some Parts of France, Switzerland, and Germany*, trans. unknown, vol. 1, (London: Rivington, 1813), p. 84. After reaching the *Elbquelle*, De Luc and his party continued and then, ‘having crossed the other rivulets, most of which rise in marshy hollows, we stopped on the banks of the Elbe, above its junction with them, and in a part where it forms a small cascade.’ They broke out the wine but opted to drink the water of the Elbe since they were thirsty from the walk, ‘this water was very cold, for the spot whence it issued was still covered with snow’ (p. 82).

recorded this fact faithfully; however, the directional surge of water rising from below is pictured through the bewildering reversal of the upward tilt of the picture plane downward. The level of the foreground as it recedes to the middle-ground reads illogically as an altitudinal procession from uphill to downhill; thus, it appears as though the partially concealed stream of water is climbing up rather than flowing down as would be the natural consequence of gravitational force. In Friedrich's watercolour, it is difficult to determine the green field's degree of horizontality in relation to the plane of the earth's sphere.

Upon arrival at the actual site, travellers are often disappointed to find that the *Elbquelle* is in the middle of sodden, spongy meadow. The area is flat and boggy and not an altogether pleasant place. Johann Friedrich Korn wrote in his *Meine Reise im deutschen Vaterlande* (1799) that, 'Here you find a quantity, perhaps as many as thirty small ponds, from which the damp soil gathers its moisture and their waters are dispatched in tiny underground watercourses. These unite; then gather more and more together to form small brooks. This is what I found at the beginning of the Elbe.'⁵

The dip in the earth at the entrance of the source, underscored by Kersting's extended right leg, mirrors the peak of the Schneekoppe on the far left of the composition. By positioning the Schneekoppe in the frame (its location in this

⁵ Johann Friedrich Korn, *Meine Reise im deutschen Vaterlande, aus Thüringen ins Riesengebürge zu Elbquellen und durch Böhmen ins Erzgebürge; über Erfurt, Leipzig, Dresden, Baussen, Görliß, Bunzlau, Warmbrunn, Hirschberg, Arnau, Turnauf, Prag, und Töpliß bis Freyberg*, (Breslau: Hirschberg und Lissa, 1799), p 264. 'Hier findest du eine Menge, vielleicht mehr als 30, kleiner Tümpfel, die sich aus dem feuchter Boden zusammenziehn und ihr Gewasser in kleinen Wasseradern absenden. Diese vereinigen sich dann mehr und mehr und bilden ganz kleine Baeche. So fand ich den Anfang der Elbe.'

composition is fiction), Friedrich has aligned himself with Germans who believed, as did the Schlesiens, that the Elbe was the child of its part of the Riesengebirge. Korn wrote that as ancient cities quarrelled over which one was Homer's native home, so also did the inhabitants of two lands bordering the Elbe over the true origin of the Elbe River. The Schlesiens declared that the Elbe's water flowed through the pinions of an eagle adorned with the white of the moon beneath the Schneekoppe and thus the White Elbe was the true source, whereas the Bohemians believed that silver lions guard the source and do not permit the white water to pass until the mineral-enriched water of the true Elbe flowed first.⁶ Regardless of where the water appears on the face of the Earth, the true source of the Elbe is beneath the surface of the saturated field in the Riesengebirge. In the watercolour, the gaze of Kersting appears to be fixed on the ravine before him, rather than upon the magnificent lighted peaks of the Schneekoppe, Silberkamm, Planurbaude, and the Ziegenrücken mountains above him.⁷ It might be a sign of weariness, for the two have just completed a steep 200m ascent to reach the spot; however, it is more likely that the downward gaze is a symbolic motion. The entire composition of Friedrich's watercolour looks as though it could drain into the dark hole of the *Elbquelle*. The oil painting, *In Memory of the Riesengebirge*, communicates the same sense of descent into the depths; a chthonic homecoming expressed through paint.

The two artists had arrived at the *Elbquelle* after having first stopped at Sausteine and Quargsteine. All Riesengebirge tourists continued past the Elbe

⁶ Korn, p. 164. The source of the Elbe is located in present-day Czech Republic where it is called the Pramen Labe.

⁷ Georg Julius Ernst Gürich, *Geologischer Führer in das Riesengebirge*, (Berlin: Gebrüder Borntraeger, 1900), pp. 6-7.

source to the Große Sturmhaube and Schneekoppe peaks, until they eventually ended their walk in Zittau several days later. Friedrich's itinerary was identical to that of Carl Gustav Carus' excursion ten years later and to those who made the journey ten, twenty, or thirty years before. In her study on Carl Gustav Carus (1789-1869), Marianne Prause includes a map that details every stop along the way including those at the *Ruinen des alten Schlosses Kynast* and the Kochelfall, both favourite subjects of Romantic painters.⁸ Before a traveller undertook a journey into any of the German mountain ranges, he or she reviewed the popular and classic guidebooks, and recent literature on the planned route. Many of these were in the form of a travelogue and others were documented reports on the local flora and fauna; still others were geographical descriptions in the modern sense of the term. The travelogue would present valuable information concerning practical matters; however, the writer sometimes delivered an ungenerous commentary on his fellow tourists. Johann Kaspar Riesbeck wrote about how less sophisticated travellers from the German lowlands,

for the first time of their lives see a hill which deserves the name, makes a great shout, and think that they have seen the pedestal of heaven; just so in Bohemia, the Riesengebirge is indebted for its reputation to the small notion which those who have brought it into repute have of hills; and thus it may formerly have been with Atlas, Olympus, Athos Parnassus, and the other hills so noted in history.⁹

In the case of travel-inspired literature from the Riesengebirge, Heinrich von Kleist climbed the Schneekoppe with Theodor Körner in 1809 and wrote a less cynical though more ironic reception of the mountains. Kleist reported a

⁸ Marianne Prause, *Carl Gustav Carus: Leben und Werk*, (Berlin: Deutscher Verlag für Kunstwissenschaft, 1968), p. 80.

⁹ Johann Caspar Riesbeck, *Travels through Germany; in a series of letters written by the Baron Riesbeck*, trans. Rev. Mr. Maty, vol. 2, (London, 1787), p. 154.

fictionalized event from his journey in the form of a short story entitled, 'Improbable Veracities,' published 10 January 1811 in the *Berliner Abendblätter*.¹⁰ The tale centred on the workings of a stone quarry high above the Elbe, where the stonemasons would heave gigantic granite blocks off the three-hundred foot high ledge in order to split them upon the discarded pipe stems the workers have thrown as rubbish below. Kleist was illustrating the already embellished stories told by the inhabitants of the Riesengebirge who reported that the mountains contained magical metals whose strength was superior to mere stone, though even a character in the tale doubted the veracity of the dubious account of huge stones splitting upon impact with tiny tin smoking devices.

The popular *Beobachtungen aus Reisen nach dem Riesengebirge* (1791) falls into the category of nature-guide.¹¹ The book consists of a set of formal findings written by members of a scientific expedition sent to the Riesengebirge in 1786. The etched head-piece that introduces the preface of the book published in Dresden is a vignette of the Schneekoppe which depicts walking paths and streams of water from its source upon the mountain that we apparently are to understand join together to form the Elbe River which is visible in the valley to the left of the peak (fig. 4.10). The chapters have titles such as, 'Remarks on the mineralogy observed on a journey through the Riesengebirge' and 'Botanical

¹⁰ Heinrich von Kleist, 'Improbable Veracities,' trans. Carol Jacobs in *Diacritics*, vol. 9, no. 4, (Winter, 1979), pp. 45-46.

¹¹ J. Jirasek, T. Hænke, Abbé Gruber, F. Gerstner, *Beobachtungen auf Reisen nach dem Riesengebirge*, (Dresden: Königl. Böhm. Gesellschaft der Wissenschaften, 1791).

Observations of a journey through the Bohemian Riesengebirge.’¹² The third chapter consists of detailed measurements of atmospheric pressure, air temperature, and the structure of clouds and trees, above and upon the Riesengebirge.¹³ The fourth chapter by Franz Gerstner offers instruction on how to measure distances and the height of mountains. At the back of this fourth section, an engraving illustrates profile-elevations of the Schwarzberg and Schneekoppe mountains as calculated with a site-gauge and manometer – an instrument used to measure both altitude and barometric pressure (fig. 4.11).¹⁴ These types of books appear to modern readers to contain text that would appeal only to specialists; however, they were read widely, if not always understood completely.

Instruments of measurement were a recurring subject in visual culture at the end of the eighteenth century. On the title-page of Johann Friedrich Wilhelm Charpentier’s *Mineralogische Geographie der chursächsischen Lande* (a book that figured significantly in the first chapter of this thesis), an extremely accomplished engraver has depicted a charming scene in which a group of putti are at work with the tools of a mineralogist (fig. 4.12).¹⁵ One figure uses a

¹² *Beobachtungen auf Reisen nach dem Riesengebirge*, ‘Die mineralogischen Bemerkungen auf einer Reise nach dem Riesengebirge von Johann Jirasek, Landes-Ingenieur, (p. 3) and ‘Die Botanischen Beobachtungen auf der Reisen nach dem Böhmischem Riesengebirge von Thaddeus Hænke,’ (p. 31).

¹³ *Beobachtungen auf Reisen nach dem Riesengebirge*, ‘Physikalische und oryktologische aus dem Riesengebirge gesammelte Bemerkungen von Abbé Gruber,’ (Dresden: Gesellschaft der Wissenschaften, 1791), p. 164.

¹⁴ *Beobachtungen auf Reisen nach dem Riesengebirge*; a description of the manometer is on pp. 288 and 298 in the text.

¹⁵ Johann Friedrich Wilhelm Charpentier, *Mineralogische Geographie der chursächsischen Lande*, (Leipzig: Siegfried Labrecht Crucius), 1778.

hammer upon rock and another carries an ore sample. The model for the ore-bearer is likely the figure in *Plate XV* of Christoph Weigel's *Bildnisse aller Hütten Beambten und Bedienten* of 1724 (fig. 4.13). The engraved figures of mining and smelting workers found within Weigel's catalogue of colliery costumes informed much of the visual culture concerning mountain life in the eighteenth and nineteenth centuries; and, many of these figures are embedded in landscapes with mountains and other topographical features in evidence behind the central figure of each image. In the Charpentier engraving, a third putto appears to be reading notations, and a fourth peers through a surveying instrument whilst the fifth figure directs the surveyor's gaze. Friedrich's contemporaries portrayed themselves positioned behind similar devices to view the landscape (fig. 4.14, C. G. Carus, *Blick vom Milleschauer nach Western*, 1827). Carl Gustav Carus uses the stubs of branches on a dead tree with which to steady his monocular device in order to draw the view opposite of his *Blick vom Milleschauer nach Osten* (fig. 4.15). The results of looking through such an apparatus (or through a transparent plane with a lined grid) were drawings based on monocular perspectival systems that tended to flatten space when, in the case of the lined-glass plate, the intention was to help differentiate varied depth in space. Artists, such as Friedrich, devised strategies to counteract this flattening of space. Werner Busch has argued that Friedrich geometrized many of his works in accordance with Schleiermacher's notions of spirituality and that this consequential acknowledgment of infinity through mathematical calculation may have extended spatial depth within Friedrich's work. Busch presents ample evidence of his reliance on the principle of the Golden Section; and, it is true that Friedrich made numerical declarations and notations indicating the horizon line

on several of his drawings that suggest his use of visual aids whilst drawing *en plein air*.¹⁶ It is the knowledge of how, or even why Friedrich merged the succession of vertical planes with the perceived horizontal surface of the earth in the way that he did, that remains key to comprehending his compositional method; and, works like the *Elbquelle* indicate that this relationship between verticality and horizontality is not always a conventional one – it reaches deeper than the surface.

More than one-hundred treatises on perspective were written in Europe during the first quarter of the nineteenth century that address this issue and the field, as it relates to phenomenology, has been explored in depth over the past thirty years since Ernst Gombrich's seminal essay on the topic – I will not attempt to recapitulate the scholarship on the subject in this thesis.¹⁷ Instead, it is the fact that these devices were used to make pictorial representations of panoramic views, prospects of the entire expanse surrounding an observer that interests this author; specifically how these panoptic visions contrast with the new figuration of the world below them. *Plate XII* of Henning Calvör's *Acta Historico-Chronologico-Mechanica circa metallurgiam in Hercynia superiori* (1763) is an example of this envisioning of the *Unterwelt* (fig. 4.16, 4.17, 4.18). The image was conceived as a fragment of the panoramic cross-section of the mining works at St. Andreasberg in the Harz Mountains. The area of the etching devoted to

¹⁶ Werner Busch, *Caspar David Friedrich: Ästhetik und Religion*, (Munich: Verlag C. H. Beck), 2003, p. 84.

¹⁷ Kim H. Veltman, 'Literature on Perspective: A Select Bibliography (1971-1984),' *Marburger Jahrbuch für Kunstwissenschaft*, vol. 21, 1986, p. 184. (185-207). Ernst Gombrich, 'Review Lecture Mirror and Map: Theories of Pictorial Representation,' in *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*, vol. 270, no. 903. (Mar. 13, 1975), pp. 119-149.

mapping the underground is equivalent to that plotting surface area. The picturing by the unknown draughtsman of the relationship of surface to subterranea is particularly noteworthy in the history of technological illustration. When examining the illustration's expression of unfathomable depth occasionally punctuated by human tunnelling, one is envisaging, along with Calvör, the profound density of matter that resides beneath the surface. The immensity of mass found in the earth's structure is what I believe Friedrich attempted to express through the opaque, impenetrable green field which concealed the *Elbquelle* in his watercolour. This type of picturing is related to the subterranean motives explored in the preceding chapters.

Most individuals who travelled extensively throughout the German-speaking lands in order to conduct research or make preparatory studies for landscape painting made use of the numerous travel guides available for consultation. One such guide used by those journeying through Switzerland was J. G. Ebel's *Anleitung auf die nützlichste und genussvollste Art die Schweiz zu Bereisen* (1804) which provided guidance on wide-ranging subjects, for instance; what volumes to read in preparation for the journey on the subjects of art, mineralogy, political and natural history; the best weight, size, and colour (blue or grey to prevent the temporary blindness caused from looking at white) of paper and type of drawing instrument for sketching; proper use of boot crapons and hammers; and how to arrange for the crossing of two caravans going in opposite directions on high narrow mountain pass where there is limited room.¹⁸

¹⁸ J. G. Ebel, *Anleitung auf die nützlichste und genussvollste Art die Schweiz zu Bereisen*, (Zürich: Füssli und Compagnie, 1804) in 4 volumes. An extensive bibliography begins on page 1. Pages 190-216 list the best writings on Political History, Geography, and Natural History. Page 217 begins a long listing of readings of interest

The guides that were most helpful to mountain ramblers were the pedagogical type exemplified by F. C. Watterich's *Album für Kunst- und wissenschaftliche Wanderungen im Riesengebirge* which had the subtitle, 'A Pocket-book Guide for the Intellectually Curious and Mature Youth.'¹⁹ Many practical tips were included throughout the volume for those who sought to sketch nature and methodically observe natural phenomenon. Directions were given as to how to arrange vegetal matter for the best aspect for sketching. Friedrich's studies of trees and plants follow these guidelines – rather than those suggested within artists' manuals of the period. The instructional texts for artists published in Germany at the time neglected this area of visibility. At the back of the book, an etching provided a silhouetted template of the profile of the Riesengebirge with which the reader could compare the landscape through which he or she travelled (fig. 4.19).

Friedrich August Tittel drew an elegant panorama of the Riesengebirge that was published in *Haupt- oder Profil-Ansicht der ganzen Kette des Riesengebirges in Schlesien* (fig. 4.20, 4.21).²⁰ In the *repoussoir* feature of the etching to the left of centre foreground, two men are standing (fig. 4.22, *detail A*). One, in three-quarter profile, holds a telescope pointing towards the mountains to his left. The other figure stands with his hands clasped behind his

to artists and other parties. 'Die besste Form des Zeichentaschenbuchs ist gross Octavs, indem man es in einer weiten Tasche bequem tragen kann,' p. 51.

¹⁹ F. C. von Watterich, *Album für Kunst- und wissenschaftliche Wanderungen im Riesengebirge, Ein Taschenbuch der wissbegierigern reifern Jugend*, (Prag, 1839). A complete legend of the twenty-four mountain peaks correlated to the print is listed on page 28 of the volume.

²⁰ Friedrich August Tittel, *Haupt- oder Profil-Ansicht der ganzen Kette des Riesengebirges in Schlesien*, (Schmiedeberg/ Hirschberg: F. E. Glogner, 1815).

back, looking not up or out, rather his head is tilted downwards to his right. In the distance, each mountain is numbered from the Schmiedeberger on the far left to the Schwarzenberge on the right, so that each number corresponds to an explanatory key providing the name and altitude of the peaks. The etching is monochromatically hand-coloured with various values of a dark umber. The similarity of this etching with Carus' *Blick vom Milleschauer nach Osten* and numerous drawings by Caspar David Friedrich of the Riesengebirge cannot be coincidental (fig. 4.15). It was the traveller's habit of mapping peaks, encouraged by these travel guides, which informed many of works of landscape. This practise was not just a playful way to interact with mountains; it was a necessary exercise in order to insure that traveller was not overcome by the disorienting spatial dimensions of the terrain. For Friedrich, it was a means with which to both place himself and his viewer cognitively within the landscape.

This profiling of terrain through contoured outlines is a concept borrowed from elevations used by mariners with which to identify coastlines; a form of mapping with which Friedrich would have been familiar from his early years on the Baltic. Depictions of distant mountains as ephemeral silhouettes in the background are numerous in the work of Friedrich; and often these look as though they are based on details of panoramas such as Tittel's *Ansicht des Riesengebirge* (fig. 4.22, detail B). *Moon over the Riesengebirge* (Staatliche Kunstsammlungen, Weimar, 1810), a fragment of a complete painting which was likely a pendant to *Bohemian Landscape* (Staatsgalerie, Stuttgart, 1810), provides an example of such a composition by Friedrich.²¹ Additionally, a watercolour in the Oskar Reinhart Foundation Collection in Winterthur,

²¹ Vaughan, pp. 130-01.

Landscape of the Riesengebirge (1828), is one such work (fig. 4.23). Karl-Ludwig Hoch in his *Caspar David Friedrich und die böhmischen Berge* provided dozens of photographed cognates of Friedrich's mountain paintings, although the picturing of these same views in engravings or etchings produced during the age of Friedrich are not mentioned. Thus far, the scholarship on Friedrich has not made reference to the prints which served as guides for artists, such as Friedrich, to make their way through the mountains.

The method of outlining mountain features also was utilized by scientists in order to identify particular geological structures. *Profil durch den Harz* is an example of this type of silhouette (fig. 4.24). The image, from *Archive für Mineralogie*, detailing the mineralogical character of the mountain's strata will be discussed later in this chapter. Less theoretically inclined travellers used the method to record the appearance of strange rock formations. Christian Gottfried Assmann (1752-1822) was a professor of economics at Wittenberg who wrote *Reise im Riesengebirge: Ein geologische Versuch* (1798), a book whose prose typified a lay-person's experience of natural phenomena.²² At the back of the volume are two depictions of large boulders teetering at the edge of other large rocks (fig. 4.25 and 4.26). In *Figure A*, the author represents himself at work sketching. He is seated casually beneath one of the precariously positioned monadic stones. The unsophisticated quality of the drawing adds a comedic sense of the sinister in these images. Assmann's interest is almost entirely with the present condition of the stones (which might, at any moment, fall on his head), with little notice given to their setting and origin. It also calls our

²² Christian Gottfried Assmann, *Reise im Riesengebirge: Ein geologische Versuch*, (Leipzig: Christian Gottlob Hilscher, 1798).

attention to the steady visual acuity present in Friedrich's quick drawings of Kersting posed under and on top of similar rock formations.

Four engravings in the aforementioned *Mineralogische Geographie der chursächsischen Lande* by Charpentier are perhaps amongst the most elegant examples of the depiction of a rock formation to be found within a book (fig. 4.27, 4.28, 4.29 and 4.30). The explanatory text tells us that we are looking at the famous *Topasfelsen* at Schneckenstein near Auerbach in Saxony from the four cardinal points of the compass.²³ The stone has been mined for centuries for its yellow topaz whose existence is the result of its proximity to granite and greisen rock which ruptured onto the surface. Ore bodies can be an outcrop of stone with a vertical and internal connection between the two levels. What is so fascinating about these images, aside from their exquisite execution, are the details that record the activity of crystal removal within and under the formation itself. Human presence at the site of the natural rock is implied through the inclusion of ladders with which to climb the stone and a haulage-assembly with which to descend below it to remove the gem-impregnated rock. Unlike in Assmann's images of the teetering rocks, the viewer's attention is drawn to the totality of the *Topasfelsen*'s existence by objects that mark geological time and those that indicate a more recent period – the gaping fissure in the earth signals its ancient origin and, fir trees and the work-house, a historical past. *Plate 4* and *Plate 7* expose the depths as a temporal extension of space within images whose

²³ Charpentier, 1778, p. XLIII-IV. Baron Ignatz von Born published Johann Gottlieb Kern's *Vom Schneckensteine oder dem sächsischen Topasfelsen*, (Prag: W. Gerle, 1776), following the death of Kern in 1775. The Kern volume included four engravings similar to those in Charpentier's *Mineralogische Geographie*, although they do not match their quality.

elegant beauty belies the conscientious scientific observation that engendered the engravings' refined appearance.

Charpentier ends the preface to his *Observations of the Ore-courses principally within the Saxon Mountains (Beobachtungen über die Lagerstätte der Erze hauptsächlich aus den Sächsischen Gebirgen, 1799)*, a book written as a sequel to his volume with the *Topasfelsen*, with a quote by the natural scientist Henrik Steffens.²⁴ Steffens invites the natural scientist to ask questions relevant to the existence of the natural world in ages past, suggesting that speculation is valuable as long as one does not let fantasy take too large a part in the analysis of the evidence found within the earth. When he wrote *Contributions to the Inner Natural History of the Earth (Beyträge zur inner Naturgeschichte der Erde, 1801)*, Steffens described the earth in a state of infinite mobility, a consequence of the persistent progression in states of being amongst the living kingdoms. Steffens was attempting to write a developmental history of the earth.²⁵ He

²⁴ Johann Friedrich Wilhelm von Charpentier, *Beobachtungen über die Lagerstätte der Erze hauptsächlich aus den Sächsischen Gebirgen. Ein Beytrag zur Geognosie*, (Leipzig: bey Georg Joachim Göschen), 1799, p. X.

Wir müssen uns das unorganische Reich als schon existirend vorstellen, ohne der ersten Entstehung desselben nachzuspüren, obgleich die Nachforschung jeden denkenden Kopf unvermeidlich zu der Frage darnach fuerht. Denn erstlich liegt dieses problem, augenscheinlich ausser den Gränzen unsers Erkenntnissvermögens, und kann da hier keine Erfahrungen moeglich sind, bloss zu leeren Phantaspiespielen Veranlassung geben, die, wären sie mit noch so viel Geist und Scharfsinn ausgedacht, auch desshalb nichts zum Fortschreiten der Wissenschaft beytragen können, weil man sie nie mit spätern Erfahrungen vergleichen kann, und sie also ewig bloss Hypothesen bleiben werden.

Quote taken from Henrik Steffens, *Über Mineralogie und das mineralogische Studium*, (Altona, 1797).

²⁵ Henrik Steffens, *Beyträge zur inner Naturgeschichte der Erde*, (Freiberg: Verlag der Crazischen Buchhandlung, 1801), p. 114.

positions himself as a natural historian at a location similar to where Georg Friedrich Creuzer stood in relation to human history. Creuzer described the discipline of history as the decipherment and discovery of the 'other' in which the historian doesn't limit herself to understanding the principles by which ancient peoples lived, instead she searches for new questions through an examination of the development of these principles. Creuzer believed it was the mind that generated history, myth, and symbols.²⁶ Perhaps it is the following statement by Walter Benjamin in *The Origin of German Tragic Drama* that best synthesizes the essence of the meditations on historical and geological past presented by Creuzer, Charpentier, and Steffens: 'In the process of decay, and in it alone, the events of history shrivel up and become absorbed in the setting ... it is fallen nature that bears the imprint of the progression of history.'²⁷

Friedrich's art is the instrument through which the varied narratives of human and geological history offered by the German Romantics are possible. Although Carl Gustav Carus is more frequently mentioned in the Friedrich scholarship, I believe the artist was intellectually closer to Steffens' disposition. Like the writings of Steffens, Friedrich's artworks provide a rich commentary on place. He witnessed ground-breaking developments in the picturing of nature through his association with the originators of these developments. The penchant of the German people for reading had a similar effect on visual literacy that textual literacy did and, it was well-known that the Germans were wholly engaged in the discourse of natural history.²⁸ The journal, *Archiv für*

²⁶ Ernst Howald, *Der Kampf um Creuzers Symbolik: Eine Auswahl von Dokumenten*, (Tübingen: 1926), p. 13.

²⁷ Walter Benjamin, *The Origin of German Tragic Drama*, pp. 179-80.

²⁸ Riesbeck, *Travels through Germany*, 1787, pp. 77 and 189.

Mineralogie, Geognosie, Bergbau und Hüttenkunde, which included the *Profil durch den Harz* referred to earlier, was read by the public as well as specialists in the fields of mining and foundry technologies.²⁹ Its sister publication, *Archiv für Bergbau und Hüttenwesen*, reported on everything from geological discoveries and smelting-work innovations to an account of a journey to Greifswald and Rügen by the poet and botanist Adelbert von Chamisso (1781-1838).³⁰ The editor of the two periodicals Karl Johann Bernhard Karstens gives an account in his *Handbuch der Eisenhüttenkunde* (*Handbook of Ironworks*) of the development by a miner of a new valve design for the trumpet that was based on his observations of the valves controlling the passage of air in ironworks. The miner, Friedrich Blühmel, was the trumpet player in the Waldenburg mining company band.

The *Profil durch den Harz* is a cross-section of the Harz mountain range that identifies fourteen distinct types of rock formation (fig. 4.24). The highest point

²⁹ *Archiv für Mineralogie, Geognosie, Bergbau und Hüttenkunde*, ed. C. J. B. Karstens, Berlin, vol. 1, no. 1, 1816. The journal was edited by Karl Johann Bernhard Karstens (1782-1853) and was published in 26 volumes from 1829-1854. Karstens was also the editor of *Archiv für Bergbau und Hüttenwesen* (20 vols., 1818-1831). Karstens was mentioned by Schleiermacher in a letter dated 14.4.1804 from G.A. Reimer, Berlin, 'Karstens; es ist dieser der Sohn des Professors in Rostock und Neffe des OberBergraths. Was interessirt Dich aber die schlechte Uebersetzung eines schlechten Buches und wie bist Du überhaupt zu der Kunde von seiner Existenz gekommen?' The letter ends with his asking Schleiermacher if he has planned his trip to Rügen yet; another site in Germany where individuals sought an extraordinary experience with nature and well-known to Friedrich scholars.

³⁰ Adelbert von Chamisso, 'Untersuchung eines Torfmoores bei Greifswald und ein Blick auf die Insel Rügen,' *Archiv für Bergbau und Hüttenwesen*, vol. 1, 1823, pp. 129-39. Chamisso was the chief custodian of the Royal Prussian Botanical Gardens in Berlin. He wrote the tale *Peter Schlemihl* on which the German Expressionist, Ernst Ludwig Kirchner based a cycle of woodcuts in 1916.

is the Brocken, a granite behemoth which towers over the surrounding peaks. In the case of this print, the mineral constituents of the mountain are the subject of the etching and the outline of the peaks is the organizing feature. In the same issue of *Archiv für Mineralogie* that the *Profil* was printed, two images of the *Steinbruch von Weinböhla* near Meissen which illustrate an article on the stone quarry were included.³¹ Plate VI is an etching based on a drawing made by Carl Gustav Carus on 7 October 1828 (fig. 4.31). The man, presumably Carus, stands at the brink of the quarry peering down into its cavity. The subject of the image is in striking contrast to the *Profil durch den Harz*, an abstract and distorted schematic of the shape of the range. One image represents a very high place from a distance; the other, depicts a low spot in close proximity to the spectator. The *Profil* is an emphatically two-dimensional picture which spurns the illusionary effect of transverse spatial depth which the Riesengebirge panoramas embraced; instead, there are only flattened indications of compressed vertical elevations. Conversely, the *Steinbruch von Weinböhla* represents spatial depth through an oblique view down into the quarry. The drawing is not a conceptualized view of the quarry; it is an actual view of it. Carus depicts the figure staring at the rocky tissue of the earth at its rupture.

Friedrich represented his walking companion Kersting performing the same visual gesture at the boundary of the source of the Elbe and in the previously discussed *Mountain Landscape with Rainbow*. The difference between the Carus image and those by Friedrich is that the latter painted the *absent* threshold, allowing his viewer to intuit the chasm below; whereas, the veil of the earth's

³¹ Hrrn. Prf. Weiss, 'Zur Erläuterung des Steinbruchs von Weinböhla bei Meissen,' *Archiv für Mineralogie*, vol. 1, no.1, 1829, p. 155 and Plate VI.

crust has been torn away and we can peer, along side Carus, at ‘fallen nature that bears the imprint of the progression of history.’ Carus’ representation is one that fixes his position in a container formed by human action. In *The Source of the Elbe in the Riesengebirge*, Friedrich inscribes a meaning about the inside-ness of the earth which counters human perception of underground entropy – the viewer does not have to intervene in order to expose the below, it is fully capable of making itself apparent. Friedrich does not mediate human-nature interface, a horizontally oriented margin; rather, he locates corridors that link the natural worlds, a vertically delineated range. This type of picturing was explored in the preceding two chapters. In this chapter, I wish to establish the existence of vertically subjective dialecticism in Friedrich’s work.

2. The Harz Mountains

Henrik Steffens did a considerable amount of fieldwork in the Harz Mountains. He wrote that the Harz served him, ‘as an example of mountain chains in general, and from them I have been compelled to draw most of my geognostical theories and illustrations.’³² As attested to in his annotated sketchbooks and is widely known in the literature, Caspar David Friedrich also did ‘fieldwork’ in the Harz Mountains as well as within the Riesengebirge. Friedrich utilized many of the drawings and memories made during his journey through Germany and Swedish Pomerania to generate paintings later in his life. Herrmann Zschoche’s study, *Caspar David Friedrich im Harz*, offers photographic evidence that links certain of the artist’s paintings and drawings

³² Steffens, *Was ich erlebte*, vol. IV, p. 18.

with specific locations within the range.³³ Zschoche also documents an extensive visual culture associated with the Harz. The visual structure of Friedrich's paintings is essentially topographic, although the authenticity of the places and the spaces they occupy, as represented by Friedrich, is made complex by the fact that his compositions are frequently a result of the compounding of drawn fieldworks. The inclusion of the Schneekoppe which was located several kilometres from the other mountains depicted in his watercolour of the *Elbquelle* demonstrates this. One might conclude from the evidence offered thus far that Friedrich was more than simply influenced by the atmosphere of Romantic literature and science; he may have adopted the methodologies of their most effectual formulations; the invented letter utilized in travelogues and novellas and, the systematic re-enactment of creation found in texts written by Schelling and Lorenz Oken – the latter formulation will be addressed in the subsequent section of this chapter. As for an implicit relationship to the invented letter, the artist compressed several views into one, and fitted together details of past visual experiences much in the same way that a writer would condense events in order to enrich the tale. In his important *Enlightenment and Romanticism in Eighteenth-century Prussia*, Henri Brunschwig disapproves of theories of Romanticism that rely exclusively on text and correspondence, and omit an examination of the circumstances of everyday existence.³⁴ In the case of scholarship that relies on archived correspondence, Brunschwig doubts the

³³ Herrmann Zschoche, *Caspar David Friedrich im Harz*, (Dresden: Verlag der Kunst, 2000).

³⁴ Henri Brunschwig, *Enlightenment and Romanticism in Eighteenth Century Prussia*, trans. Frank Jellinek, (Chicago: Univ. of Chicago Press, 1974), p. 225.

objectivity of the letter writers; however, he acknowledges that it is the very subjectivity of the prose that lends it an impression of authenticity.

Romantic writers in Germany and England made use of the device of the fictional letter contrived by the travelogue writer in their literary works. Thomas De Quincey wrote of a journey he never made into the Harz Mountains in *Suspiria De Profundis* (1845).

Ascend with me on this dazzling Whitsunday the Brocken of North Germany ... On such a morning, and reaching the summits of the forest mountain about sunrise, we shall have one chance the more for seeing the famous Spectre of the Brocken. Who and what is he? He is a solitary apparition, in the sense of loving solitude; else he is not always solitary in his personal manifestations, but on proper occasions, has been known to unmask a strength quite sufficient to alarm those who had been insulting him.³⁵

It reads like a true recollection, evidence of his brilliance as a lyricist. De Quincey imagined he climbed the Brocken, the highest peak in the range, hoping to see the unusual Spectre.³⁶ The *Spectre of the Brocken* is not a ghost, rather, it

³⁵ Thomas de Quincey, 'The Apparition of the Brocken,' in *Confessions of an Opium Eater and Other Writings*, (London: Signet Classics, 1966), p. 179-80.

³⁶

And art thou nothing? Such thou art as when
The woodman winding westward up the glen
At wintry dawn, when o'er the sheep-tracks maze
The viewless snow mist weaves a glistening haze,
Sees full before him, gliding without tread,
An image with a glory round its head;
This shade he worships for its golden hues,
And makes (not knowing) that which he pursues.

Samuel Taylor Coleridge (1772-1876) quoted in the first footnote in Thomas De Quincey, 'The Apparition of Brocken' in *Suspiria De Profundis* (1845). It was the

is a water-borne Doppelgänger; an enormously amplified shadow of an observer cast upon a distant surface. When the location of the sun in the sky is low on the horizon and behind the spectator, a silhouette is projected. The surface upon which the misty image forms may be a bank of clouds, vapour or a wall of stone. Johann Georg Keyser wrote of the Brocken in *Travels through Germany and Bohemia* (1750); he remarks that it is, at times, a mountain that shows itself as an island, raised above the Sea of Fog, 'confirmed by [the] experience of several persons being now living who climbed up the Brocksberg, which is the highest mountain in the forest of the Harz, in a bright sunshine and settled clear weather, when in the lower parts of the mountain there was nothing but wind, thunder, and lightning.'³⁷ Heinrich Heine recorded his Brocken journey in *Harzreise* (1830). Heine's reference to the Spectre is brief and, customarily tongue-in-cheek as he opts for a cup of good coffee over the cold of the morning, passing up the opportunity to see the 'demagogic phenomenon of nature.'³⁸ The poet does write of his encounter with a *Greifswalder* in the Brocken Mountain guest house, who Heine claims, 'was a man belonging to the period when lice had good times and the barbers were afraid of starving.'³⁹ It was noted by many of Friedrich's contemporaries that the artist sported anachronistic Cossack-beard and clothing styles. The *Greifswalder* was working on a monument to Hermann the Teutonic warrior, a patently veiled reference to Friedrich. This interpretation is reinforced

appearance of the same phenomenon in England that inspired the poem; which in turn inspired De Quincey.

³⁷ Johann Georg Keyser, *Reise durch Teutschland, Bohmen ... Alterthumer erlautert wird*, Hannover, 1740, I, p. 14.

³⁸ Heinrich Heine, *The Sea and the Hills*, trans. Frederic T. Wood, Boston, 1946, pp. 84-85.

³⁹ *Ibid.*, pp. 75-76.

by the fact that Heine described the Greifwalder's clothing as, 'a knightly barret and a black, Old German coat,' the radical sartorial statement worn by the devoted Romantic demagogue.

The Spectre of the Brocken was an international phenomenon, reported in scientific treatises and popular publications throughout Europe.⁴⁰ Derived from the place name, *Spectre of the Brocken* became a toponymic term used to categorize similar meteorological occurrences elsewhere, from the Rigiberg towering over Lucerne to Ben Lomond in Scotland. The following description of the Spectre in *Curiosities for the Ingenious* (1821) was restated verbatim in *Cyclopedia of Wonder and Curiosities* (1881), it seems its popularity only grew:

After having been here for the thirtieth time, I was at length so fortunate as to have the pleasure of this atmospheric phenomenon, and perhaps my description may afford satisfaction to others who visit the Brocken through curiosity. The sun rose about four o'clock; and the atmosphere being quite serene towards the east, his rays could pass without any obstruction over the Heinrichshöhe ... I observed at a very great distance... a human figure of monstrous size. A violent gust of wind having almost carried away my hat, I clapped my hand to it, by moving my arm towards my head, and the colossal figure did the same. The pleasure I felt on this discovery can hardly be described.⁴¹

⁴⁰ Many of these are included in the main body of the text, still there are numerous other reports included in nature guides, geological treatises, or botanical studies; for instance, see Hermann Bedrow, 'Der Brocken Skizze aus seiner Naturkunde, Sage, und Geschichte,' in Franz Bley's *Brocken Flora*, pp. 32-33, 'Mit dem Nebel- und Wolksegen, dessen sich der Brocken erfreut, hängt eine interessante, auf auch andern Bergen sichtbare Naturerscheinung zusammen, das sogenannte Brockengespenst.'

⁴¹ *Curiosities for the Ingenious*, (London, 1821), pp.57-58 and *Cyclopedia of Wonders and Curiosities*, ed. John Platt, (New York: Hurst & Co., 1881), pp. 420-424.

Notations documenting sightings of the Spectre are found within the *Jahrbücher des Brocken* published in 1791 with another edition following it ten years later.⁴² *Der Brocken und seine Merkwürdigkeiten* is a collection of stories from the Brocken that were taken from the guest-book of the summit-house (fig. 4.32, *Frontispiece*).⁴³ These detail encounters with the Spectre, spirit-miners, and folk from the underworld. Human traffic in the thickly forested Harz Mountains perforated with caves and mines begat accounts of other mystical encounters in the mountains. The eighteenth century chronicler of the Harz, Julius Bernhard von Rohr, reported the discovery by miners of naturally-occurring mineral portraits of Martin Luther formed on the surface of stone; geological *acheiropoetoi* by virtue of the fact that they were not made by human hands.⁴⁴ They are not images of the Holy Face, rather they depict a human who shunned icons and, whose likeness, in an ironic twist, became a cult object itself during the eighteenth century.⁴⁵

⁴² *Jahrbücher des Brockens von 1753 bis 1790, oder Namenkunde aller Personen welche in diesem Zeitraume sich in die Originalstammbücher dieses berühmten Berges eingezeichnet haben, nebst ihren hinzugefügten Beischriften*, ed. E. C. Reichard and C. F. Schroeder, (Magdeburg: Creutz, 1792). A second edition was published in 1838. Aside from the Spectre references, the yearbook reads as a who's-who of Germany. It also charts the popularity of the site by the number of signatures entered each year: 1753 – 153, 1778 – 300, 1800 – 1000+, 1820 – 2000+.

⁴³ C. E. Nehse, *Der Brocken und seine Merkwürdigkeiten, nebst einer Sammlung von Gedichten über den Brocken, entnommen aus den Brocken-Stammbüchern von 1805 bis 1838*, (Wernigerode, 1840).

⁴⁴ Keysler, vol. IV, 1760, p. 319. He is referencing J. B. von Rohr, *Geographische und Historische Merkwürdigkeiten des Ober-Hartzes*, (Frankfurt am Main and Leipzig, 1739).

⁴⁵ See Joseph Leo Koerner, *The Moment of Self-Portraiture in German Renaissance Art*, (Chicago: Univ. of Chicago Press, 1993), pp. 80-126, for a more nuanced explanation of the *acheiropoetoi*.

A visit to the Harz did not end with a journey to the summit. There are numerous caves, mines, and quarries in the mountain range that attracted tourists. The Harz, by virtue of the high rising summit of the Brocken and the unplumbed depths of its caves, offered the traveller, what must have seemed to be a total vertical experience of the earth. The novel, *Heinrich von Ofterdingen* (1799), by the mystic geologist Novalis (1772-1801) explores the totality of the landscape as the narrative is formed around the journey of a young man who travels through mountains and valleys. Harold Bloom postulates that much of English Romantic literature is subsumed by notions of elevated thought and deep introspection that play out in a landscape that mirrors the range of human emotions and, that this figurative trope is the authentic voice of Sublimity.⁴⁶ The Novalis story was, in part, a panegyric to the chthonic world of caves and mines. Novalis represents a world governed by the same forces of nature posited by Steffens. It is important to note that at the time Novalis was penning *Heinrich von Ofterdingen*, he was also working with the scientists Johann Wilhelm Ritter (1776-1810) and Steffens on unifying the principle of development in Nature under the influence of one force, galvanism.⁴⁷ At the time of his pre-mature death at the age of twenty-eight, Novalis was both writing *Heinrich von Ofterdingen* and preparing to report his findings on the setting of mountains and their inherent atmospheric circumstances contingent on the attractive pole of the stones within. Mountains, rock, and clouds figure significantly as polar extremities in the Romantic schema of magnetic force. Novalis studied the

⁴⁶ Harold Bloom, *Poetry and Repression: Revisionism from Blake to Stevens*, (New Haven and London: Yale Univ. Press, 1976), pp. 75 – 84.

⁴⁷ J. W. Ritter, *Fragmente aus dem Nachlasse eines jungen Physikers*, Heidelberg, 1810, pp. xvii-xxii.

empirical evidence of this power found deep within the earth. As mentioned in the previous chapter, he then transformed his knowledge, both practical and theoretical, into inspiration for his fictional prose.

3. The Wanderer and Lorenz Oken's Thought

Caspar David Friedrich accompanied the sculptor Christian Kühn (1780-1828) on an expedition into the core of the Harz range in 1811, and they climbed the Brocken. The sculptor searched the quarries for marble and Friedrich made studies of the earth and sky in graphite, pen and ink. From these drawings, he developed images for paintings, most not completed until ten or twenty years after his visit. June boasts the most favourable conditions with which to observe the Spectre of the Brocken.⁴⁸ Friedrich and Kühn did not choose June as the time for the journey for the sole purpose of viewing the Spectre, though they would have been aware of its expected appearance during that month. Friedrich made it plain that he did not like to travel far and, with the exception of his time in Copenhagen as a student, he had no desire to go beyond the bounds of Pomerania, Saxony, and Bohemia. The few excursions into his self-designated realm were, fundamentally, for the purpose of making concentrated surveys of what he saw there. As noted in an earlier chapter, fragments of studies made during the *Harzreise* appear over and over again in his paintings, often combined

⁴⁸ De Quincey selected Whitsunday for his fictional trip up the mountain, the episode based on the Brocken trip his friend, Samuel Taylor Coleridge made on Whitsunday in 1799 with a group of Göttingen students. Friedrich was on the Brocken on 29 June 1811, evidenced by a drawing in the collection at the Angermuseum, Erfurt which possesses an autograph by the artist stating such.

with other source material. At times, the settings are sparsely peopled with one or two, rarely more, motionless figures silently observing the landscape around them. Two examples of this, the enigmatic *Wanderer above the Sea of Fog* and luminescent *Woman Before the Setting Sun* contain an amalgam of geological features from his surveys of the Harz Mountains, the Baltic shore, and Saxon Switzerland (fig. 4.33 and 4.34).

A significant measure of Friedrich's paintings includes these individuals or couples who are visible to us only from behind. Known as *Rückenfiguren*, these faceless figures are set against a Baltic terrain of stone and water, a verdant stretch of mountain valley, or a mountainous spectacle.⁴⁹ On a few occasions, the figure stands between the spectator and a celestial event that we cannot see because of the shadowy obstruction. *Wanderer Above the Sea of Fog* and *Woman Before the Setting Sun*, both painted in 1818, are two such works.⁵⁰

⁴⁹ In general, the outline of the *Rückenfigur* contrasts strongly with the field upon which it is placed. The simple shape prevails over detail: the meaning of the figure usually dismissed in its simplicity. In gothic panel paintings, the device is frequently used as means to indicate contemporaneous observers of sacred spectacle. See M. Koch, *Die Rückenfigur im Bild von der Antike bis Giotto*, (Recklinghausen, 1965) and in Friedrich's work, see Hofmann, pp.40-43, Koerner, 1990, pp. 162-66, and Sumowski, pp. 22-25.

⁵⁰ Helmut Börsch-Supan, Werner Sumowski, and William Vaughan hold that *Frau vor der untergehenden Sonne* was painted in 1818-20. 1818 was considered an *annus mirabilis* by virtue of the fact that the sum of its numbers equalled to the pair of integers (*Curiosities for the Ingenious*, p. 83.) Although a few maintain it is a woman greeting the rising sun, the crepuscular pattern above the mountain occurs only in the evening when the sun has passed below the horizon in relation to a spectator. Werner Hofmann argues that the time of day is not necessarily intended by Friedrich to be anything but ambiguous (Werner Hofmann, *Caspar David Friedrich*, London, 2000, p. 110). A comparison of the work to others specifically denoting a sunrise will reveal that Friedrich assigns specific hues to morning sunlight and evening sunlight, respectively.

Taken together, I believe the two paintings provide an entry into the reaches of Friedrich's intellect and art. Scholars have interpreted *Wanderer Above the Sea of Fog* as an emblem of mortality; a *momento mori* to Herr von Brincken, martyr in the war against Napoleon, and this is almost certainly true.⁵¹ *Woman Before the Setting Sun*, however, has confounded appreciators more often than not. I propose to clarify the latter painting's meaning by comparing it with *Wanderer*, though I shall first offer an interpretation of the image of the mountain traveller.

So, here is the *Wanderer*, a man who rose early in the morning to walk up the mountain. What was the view he expected to see upon reaching the summit? Was it a distant view of the valley below or his image reflected upon the remote mists or far-reaching cliffs of neighbouring peaks? Did he desire to witness the sight of himself dispersed in water and light? This vision could very well help him to transcend his measured, earthbound existence. It is well-documented that trekking to the top of a mountain might induce an extraordinary experience. The penultimate *Natur-Philosoph*, Lorenz Oken, suggested the feat of suspension was accomplished through not thinking. Oken proposed an escape from the tyranny of time through the act of suspension of thought. He suggests that by realizing the potential of the eternal, one becomes self-conscious and that the ability of a human to acknowledge God enables God to become corporeal through the being of that creature.

Finally, the crepuscular pattern above the mountain in *Frau vor der untergehenden Sonne* occurs only in the evening when the sun has passed below the horizon in relation to a spectator. It is the refraction of the light waves that cause the redness of the sky.

⁵¹ Colonel Friedrich Gotthard von Brincken was a high-ranking forestry official in the service of the infantry. See Joseph Leo Koerner, *Caspar David Friedrich and the Subject of Landscape* (New Haven and London: Yale Univ. Press, 1990), p. 179. The figure wears the green uniform of *Der Jäger*, a volunteer in the cause against the French.

A finite self-conscious being we call Man. Man is an idea of God, but that in which God wholly, and in every single act becomes an object unto himself. Man is God represented by God in the infinity of time. God is a Man representing God in *one* act of self-consciousness, without time.⁵²

Thus, at the singular moment of divine innotescence, the absolute act of recognition overcomes the individual so that, 'nothing individual can persist eternally; it must eternally move itself, consequently fill up everything, displace everything, must become itself the universe.'⁵³

Oken is a significant figure to our study both because of his popularity as an 'idea' man with whom Friedrich would most certainly be familiar and because of his reputation as a political radical. Lorenz Oken is the father of the *Gesellschaft deutscher Naturforscher und Aerzte*, the German equivalent to and model for the *British Association for the Advancement of Science*. Oken had a reputation as a *Sprachschöpfer*; he coined nearly 1000 new words and was one of the most popular university lecturers of the German Romantic period.⁵⁴ John Carlyle wrote to his brother Thomas Carlyle regarding his attendance at several of Oken's lectures where he witnessed the enthusiasm for the political radical; for, although he was a natural scientist, Oken held extreme views on individual freedom.⁵⁵ Heinrich Heine also praised Oken's radicalism.⁵⁶ Carl Gustav Carus,

⁵² Oken, no. 97.

⁵³ Oken, no. 94.

⁵⁴ Martin Ruch, *Lorenz Oken 1779-1851, Ein Lesebuch*, (Offenburg, 2000), and Max Pfannensteil, *Lorenz Oken: sein Leben und Wirken*, (Frieberg: Rudolf Goldschagg, 1951), 'Oken ist ein kleines, verständiges Männlein, das sehr klug und einsichtsvoll spricht' (p. 23).

⁵⁵ Thomas Carlyle, *Sartor Resartus*, (London: Collier, 1897), p. 14.

friend and student of Friedrich, refers to Oken in his memoirs. The two men were acquaintances who held similar views concerning the underlying structure of nature and both figure as significant influences on Friedrich, and he on them.⁵⁷

Caspar David Friedrich and Lorenz Oken shared the desire that Germany would unify as one nation, thus ordered, the result would be a less politically repressive government. The natural scientist gave an address entitled, 'On the Worth of

Natural History, Particularly for the Formation and Education of the Germans.'⁵⁸

He believed that the German people would be a better people if they deepened their understanding of their relationship with plants and animals. Oken edited and published the popular journal *Isis oder Encyclopädische Zeitung* which he founded in 1816.⁵⁹ The journal circulated widely in the intellectual circles of Dresden. In the first issue, his preface stated that the purpose of the journal was,

... the general prompt dissemination of all human discoveries and the comprehensive and thorough criticism of intellectual products ... Since the natural sciences and travel offer what is most entertaining and instructive ... learning through them not only his place in nature but also that of other things around him ... could produce gradually an insight into the great machinery of nature.⁶⁰

He provided a service to the theoretical community in Germany as well by summarizing current theories and reprinting texts of articles from all of Europe

⁵⁶ Heinrich Heine, 'Religion und Philosophie in Deutschland,' in *Sämtliche Schriften*, vol. 3, p. 637.

⁵⁷ Carl Gustav Carus, *Lebenserinnerungen und Denkwürdigkeiten*, Leipzig, 1856-66, p. 1 and, *Zwoelf Briefe über das Erdleben*, Stuttgart, 1841, p. 136.

⁵⁸ Lorenz Oken, *Gesammelte Schriften*, ed. J. Schuster, (Berlin, 1939), pp. 258-9.

⁵⁹ *Isis oder Encyclopädische Zeitung* was printed from 1816 until 1848. Oken relinquished his chair at Jena in order to continue printing *Isis*. He moved to Munich in 1827 and Zürich in 1833.

⁶⁰ *Isis oder Encyclopädische Zeitung*, vol. 1, no. 1, 1816, p. 1-4. trans. in G. A. Kertesz, 'Notes on Isis von Oken, 1817-1848,' *Isis*, vol. 77, no. 3, (Sept., 1986), p. 499.

and America. It was a free forum for ideas with Oken printing all submissions despite the fact that there were those that disagreed with some of his positions. A thorough examination of *Isis* reveals that much of that we would consider to be pseudo-science today, touched the hem or even formed the core of *Wissenschaft* in its day. Reviews of art exhibitions, including several in which Friedrich's work was shown, and literary publications were printed in each issue. It was truly an encyclopaedic journal of the highest quality. It did generate controversy, however, when Oken printed an article concerning the Wartburg Festival student uprising on 17 October 1817. The result was that Oken was temporarily jailed and copies of the issue were confiscated. Goethe played no small part in this as he was the individual, who recommended censorship to the Grand Duke of Weimar in a letter,

I have just received a comprehensive and thoughtful essay on future censorship regulations, and this confirms me still more in the opinion I have here expressed at length. For it makes clear that 'press-anarchy' brings about 'press-despotism. I might add that a wise and powerful dictatorship must stand up against this kind of disorder.⁶¹

This was followed by an appeal by Oken and printing of *Isis* resumed after letters went back and forth between the three men.⁶² Oken responded cleverly by transforming his masthead for the journal for three issues in 1817. He exchanged the figure of Osiris on the left side of the seated Goddess for Harpocrates, the son of Isis with his hand raised which communicated a command of silence (fig. 4.35 and 4.36). He also placed a padlock through the lip of an image of the

⁶¹ See letter date 5 October 1816, from Goethe to Carl August in his *Briefe*. For a careful study of both Goethe/Oken controversies see Hermann Brauning-Oktavio, *Oken und Goethe im Lichte neuer Quellen*, (Weimar: Arion, 1959).

⁶² Brauning-Oktavio, pp. 76-77.

indigenous Brazilian man who had appeared in a previous issue to illustrate an article (fig. 4.37 and 4.38). Oken reprinted the image with the added accoutrement as a printer's ornament embedded within two issues the same year.⁶³ Here, I remind the reader of those hidden heads without mouths in Friedrich's *Harzhöhle* and although it is unlikely that there is a direct relationship between those and the Oken vignettes, they both indicate censored expression; Oken's are signs of suppressed speech and Friedrich's of undeveloped political promise.

Oken's own published work focused on human physical and spiritual development. His generative histories of distinct classes in all of nature anticipate Charles Darwin's theory of evolution. On a copy of his *The Whale* given as a gift to his friend John C. Hoadley, Herman Melville inscribed a quote from the English translation of Oken's *Lehrbuch der Naturphilosophie* (1809).⁶⁴ Melville chose to quote from the zoogenic section of the volume where Oken states that, 'All life is from the sea.' It is a historical injustice that Oken is best known today for his dispute with Goethe about who first realized the ultimate origin of the skull was as an extension of the vertebral column.⁶⁵ The

⁶³ Kertesz, pp. 500-504.

⁶⁴ The inscription was on 23 January, 1853. Herschel Parker, *Herman Melville: A Biography*, vol. 2, (Baltimore: Johns Hopkins Press, 2002), p. 194. The translation of Oken's *Lehrbuch der Naturphilosophie* was by Alfred Tulk, *Elements of Physiophilosophy*, (London: Ray Society, 1847), and was printed in an edition of only 300 copies. In Richard Curle, *The Ray Society: A Bibliographical History*, (London, 1954), the author referred to the translation as 'the portentous, puerile silliness' (p. 7).

⁶⁵ Sir Richard Owen in *Encyclopaedia Britannica*, 1911, XX, 55-56. There was a falling out between Goethe and Oken concerning who was the first to make this discovery. It is agreed by most historians today that both men reached this conclusion independent of one another.

disagreement became ugly and it was not helped by the fact that Goethe had attempted to have *Isis* closed down.⁶⁶ Oken claimed it was his chance encounter with the skull of a deer in 1806 during a walk through the Harz Mountains that resulted in his postulation that all organs of the mammal are nothing other than the representation of the sense organs. The vertebral-cranial theory of Oken incorporated the metaphysical system of Schelling in which the whole is found in every part. Schelling and Oken exchanged numerous letters of correspondence on the topic of the development of organisms.⁶⁷ Oken integrated the philosophical principles of Kant, Fichte and Schelling within a complex compendium describing the mechanism of creation through specific categorization of the Mineral, Vegetable and Animal kingdoms with Man at the zenith of a creative cycle. *Wanderer Above the Sea of Fog* could be said to be a suitable emblem of this state in humankind.

Friedrich has constructed a symmetrical composition in which two equilateral triangles, whose bases lie on the top and bottom edge of the painting *The Wanderer*, overlap forming a lozenge in the centre, enclosing the Wanderer; his head meeting the apex of the ascending triangle, his right foot, the apex of the descending triangle (fig. 4.39). The carefully measured, transparent lozenge in which the Wanderer stands could be considered as a spatial core merging body and spirit. The image also implies a state of nascent unconsciousness

⁶⁶ Steffens reported the dispute in *Was ich erlebte*, vol. 6, p. 254. Steffens comments on Goethe's anxiety about those who perceive him as a dilettante and others who claim his ideas as their own. Oken restated his discovery in the Harz in *Isis*, vol. 1, 1818, pp. 510-14.

⁶⁷ Alexander Ecker, *Lorenz Oken: Eine biographische Skizze*, (Stuttgart: Schweizerbart'sche Verlagshandlung, 1880), pp. 177-214.

promulgated by Carl Gustav Carus in *Psyche*, his study on the state of the soul.⁶⁸ By centring the Wanderer atop a jagged precipice, his feet on the rock and his head in the clouds, the painter implies the *raison d'être* of man is to develop his capacity to cross between the terrestrial and divine worlds. Yet, how does he achieve this passage from one state of being to the next?

'Time is the act of numbering; numbering is thinking; thinking is time. Our thinking is our time. In sleep there is no time for us. God's thought is God's time,' wrote Oken, concluding when we dream we are in God's thoughts which are divine.⁶⁹ To dream is to enter a second, simultaneous state of being. The second state, the unconscious life of the soul, does not require a physical dissipation of energy in order to exist – therefore, one is free from the lines of energy that connect the conscious self to the earth.⁷⁰ Crossing the threshold into effortless *not-thinking*, the unconscious life of the soul, is analogous to tapping into an infinite stream of energy.⁷¹ Schelling defined this journey into a dual state of existence as an instinctual effort by Man to bring the near (body) and far (soul) together on Earth, thus replicating the nature of God. According to Carus, degrees of consciousness or unconsciousness are directly related to the proximity

⁶⁸ Carl Gustav Carus, *Psyche: zur Entwicklungsgeschichte der Seele*, 1846.

⁶⁹ Lorenz Oken, *Lehrbuch der Naturphilosophie* (1809-1811), translated by Alfred Tulk, *Elements of Physiophilosophy*, London, 1847, pp. 20-24.

⁷⁰ Carus, p. 57.

⁷¹ Carus, p. 57. The first German speculative mystic and theologian, Meister Eckhart (1260-1327), held that an individual should strive to know Nothingness. By achieving an empty mind, one creates a void available for the divine to fill. His doctrine of divine nature and his explication on the correspondence between the human and divine psyche prefigure much of German Romantic *Naturphilosophie*. See F. Pfeiffer, *Deutsche Mystiker*, II, (Leipzig: 1857).

of the divine. Carus proposed that *entheism*, the perception of divinity, is the fundamental proof of dual nature in the Universe.

The sleep state is where humans are able to exist liberated from the confines of time and space. When we dream, the sense of sight dominates all the others. It is not the ocular sight of the waking world; in the view of the Romantic, to dream is to share vision with the Divine, to be unconscious of limitation, to not be thinking.⁷² According to Carus, the unconscious state could be accessed through countless channels other than sleep. A scent-memory, a distant planetary or local terrestrial magnetic current, all could induce a brief or prolonged unconscious state. A dramatic shift in the surrounding atmosphere is a credible candidate for such an inducement as evidenced by the fact that animals, 'seem to know in advance – and show it in their structure – about atmospheric changes.'⁷³ With this in mind, other than the conditions on the shoreline of the Baltic Sea, there are few better locations for a Pomeranian traveller to experience a sudden, dramatic change of atmosphere than on the top of a high mountain in the Harz.

The scale of *Wanderer* is monumental. The size is not an especially large one, though it is within Friedrich's oeuvre. When the viewer stands gazing before the painting, an odd sensation of non-physical projection arises from the

⁷² Carus, p. 74. The restorative powers of sleep have been well known since ancient times as noted by Carus. Asclepius, the Greek god of Medicine advocated the ritual of incubation in sacred enclosures to cure illness and a cave in the Harz Mountains is reputed to induce such a state of rejuvenate slumber.

⁷³ C.G. Carus, *Psyche: on the development of the Soul*, trans. Renata Welch, (Dallas, 1970), p. 64. The work by Carus was the central inspiration for Carl Jung's studies of human psychological states. See Carl Jung, *Memories, Dreams, and Reflections*, p. 102 and the epilogue to *Mysterium Coniunctionis*, no. 794.

body. This is not true for every individual who finds him or herself standing in front of the painting in the Hamburg Kunsthalle, though I would venture a guess that nearly everyone who travelled specifically to see *Wanderer Above the Sea of Fog* experiences an eerie sensation of weightlessness upon arrival. Although the composition of *Wanderer* is inherently symmetrical and balanced, the core structure of the overlapping equilateral triangles energizes the surface, escalating and descending, over and under the Wanderer. His wind tousled hair, the skipping wisps of vapour, the upper level clouds moving in a contrary direction to the mid-level formations; in their totality, add to a hastening sense of expansion. Given the endlessly layered airspace of the arrangement, the expansion seems likely to never end, resulting in an unconscious sense of longing for convergence.

The encounter with the *Brockengespenst* includes an observable feature that can be witnessed only by the image-casting spectator of the actual event. Recorded in Nehse's *Der Brocken und seine Merkwürdigkeiten*, the haloing effect known as a glory (*Heiligenschein*) swims brightly about the Spectre's head and it may be that Friedrich referenced this phenomenon by glazing a translucent multihued glow emanating from the clouds beneath the Wanderer's perch.⁷⁴ Steffens reported a similar occurrence when he was travelling with the Crown Prince through the Riesengebirge.⁷⁵ Heinrich Keller, a cartographer and creator

⁷⁴ Nehse, pp 25-6, '... dann erhält der Schatten nicht den kreisförmigen regenbogenfarbigen Heiligenschein, sondern es gehen von Haupte des Schattens drei gelbe, hell glänzende, scharf gezeichnete und weit strahlende Scheine rechts und links vom Auge und senkrecht, ungefähr in nebenstehender Form und in hochgelber Farbe.' The *Heiligenschein* is also described in *The Brocken and its Curiosities* (1840).

⁷⁵ Steffens, *Was ich erlebte*, vol. IX, pp. 4-6. They witness an event similar to the Spectre and then see other light phenomena. Steffens comments, 'Ich bin ueberzeugt,

of strip panoramas very much in demand by German and Swiss collectors, recorded such an event in an engraving found in *A Geographical Description of the Rigiberg (Beschreibung des Rigiberges, 1814)*.⁷⁶ The print is entitled *Der Nebelbild* and is number eight of twenty *Rigiblätter* which are part of a deluxe portfolio published in four editions (fig. 4.40). This image depicts a man, two women, and a child standing on a mountainside, looking toward a series of mountain ranges. Between the onlookers and the distant peaks, their silhouettes are projected upon a bank of fog – a cluster of *Brockengespenstes*. The folio also includes a foldout engraving of a panorama. The panorama consists of three separate printed sheets that are tipped-in together in sequence of the overall image and folded into nine pairs of facing pages, accordion-style, so that it would fit within the binding. One of the folded panels depicts the viewing platform on the Rigi summit which placed spectators in a position, so that, like their gaze, they floated above the earth (fig. 4.41). These viewing platforms performed as watch-towers during the Thirty Years War and remained in use long after the conflict had ended. All of the plates were engraved by J. J. Scheurman from original drawing by Keller.

dass die Heiligenschein der Maler dem Anblick solcher Kreise ihre Entstehung zu verdanken haben.'

⁷⁶ Heinrich Keller, *Beschreibung des Rigiberg*, (Zürich: Füessli & Comp., Kunsthandlern zur Meissen, 1814). Further editions printed in 1816, 1820, 1822, and 1823. The portfolio was sold either as plain or in a more expensive hand-coloured set. The colouring was systematized: dark-grey wash on the foreground, light-grey in background; a glacier field in light warm brown; the lakes, rivers, and other waterways designated by an aquamarine wash; human settlements have a light rose-madder tint; and roads, pathways are a nearly opaque brown umber. One could also buy only the engraved panorama.

The behemoth panoramic installations, popular in the public sphere during periods of the nineteenth century, dwarf Keller's diminutive prints meant for intimate viewing. Like the watch-towers, the original purpose of the engraved panorama was not for pleasure-viewing but rather to chart the customs boundaries for merchants travelling across the Alps. Heinrich Keller created maps just for this purpose.⁷⁷ The larger projects, structured by the continuous horizon as seen from one location, were not so ambitious as to claim to re-enact creation; however, they did re-structure vision.⁷⁸ Friedrich did not go so far as to abolish the frame as the panorama painter attempted to do, but he did insinuate its extension. Friedrich's fragmentation of panoramic vision is an issue addressed in the scholarship; for now, acknowledging the implicit extension past the proscribed boundaries of the *Wanderer* image, I would simply note the schematic attributes of Friedrich's early fieldworks and the similar spare structure of the engraving.⁷⁹ The profile of mountains also share a correspondence with Friedrich's *Rückenfiguren*, like the silhouette or paper cut-outs mounted on a ground, popular in the period, they privilege shape over detail.

Having been on the Brocken, I can report the incongruity of the view in *Wanderer Above the Sea of Fog* with the actual view from the mountain. The view beyond the *Wanderer* does not exist anywhere; it is a fiction wrought from

⁷⁷ One for Johann Kaspar Zellweger's *Zollkarte der Schweiz*, 1825 and his own effort; Heinrich Keller, *Reisekarte der Schweiz*, 1813.

⁷⁸ Stephan Oettermann, *Das Panorama. Die Geschichte eines Massenmediums*, Frankfurt am Main, 1980, p. 47.

⁷⁹ An excellent treatment of the panorama in Friedrich's work is Günter Grundmann's 'C. D. Friedrich: Topographische Treue und Künstlerische Freiheit, dargestellt an drei Motiven des Riesengebirgs Panoramas von Bad Warmbrunn,' *Jahrbuch der Hamburger Kunstsammlungen*, 19, (1974), pp. 89-105.

Friedrich's memory, the composite depiction guided by his sketches of many mountain views, from the Harz to Saxon Switzerland. The Spectre of the Brocken may not be the subject of Friedrich's painting, though I believe Friedrich was conscious of the phenomenon. The fact is that the Spectre was part of a shared cultural experience, a de-materialised cult figure representing a nexus in the crosscurrents between the sciences, literature and popular culture. It was human experience of the natural world personified in a meteorological occurrence; yet, the effects of the experience embody the very *Absolute* beyond what the philosophers could describe in subjective terms.

Upon arrival at the top of a mountain, the view changes everything. The climber sees the other side and is subjected to the extremity of verticality. This certainly was the experience of the Wanderer as he exists in the following fragment from one of the *Nine Letters on Landscape Painting* written by Carus:

Der Jäger climbing in the morning mist over rocks will focus the meaning of the landscape; the solitary form contemplating the tranquil place will energize the spectator to imagine it also – the pilgrim becomes the notion of distance, that which is the Immeasurable Absolute of Earth's surface. Always though, the landscape will determine the sentient being.⁸⁰

In Novalis' afore-mentioned *Heinrich von Ofterdingen*, we find a similar summit experience. Heinrich makes a trek up a mountain:

the dry chill of apathetic despair drove him ... The laborious climb calmed the destructive play of the forces within him. He was faint but quiet. As he sat on a stone and gazed back, he did

⁸⁰ C.G. Carus, 'Von der Wirkung einzelner landschaftlicher Gegenstände auf das Gemüt,' in Sigrid Hinz, *Caspar David Friedrich in Briefen und Bekenntnissen*, München, 1974, p. 206.

not yet perceive what had gradually been heaping up around him. He felt as if he were dreaming or had dreamed. A glory stretching beyond the range of sight appeared to open before him.⁸¹

Novalis describes the rush of contrary feelings in Heinrich, as he reaches the summit and the climax of his longing. There is an explicit similarity between this passage and the Carus epistle, the widely circulated descriptions of the Spectre of Brocken, and *Wanderer above the Sea of Fog* – Carus would term it *Gipfelerlebnisses*, a summit experience – that is analogous to the spiritual introspection experienced by Plutarch during his ascent of Mount Ventoux in the fourteenth century. The adaptations include three common components; a solitary figure, mountain peak and mist. The three combine to produce a semblance, an organic *acheiropoetos*, with the requisite materiality of the image substituted with immateriality. The Wanderer projects no shadow onto the rock platform upon which he stands; his shadow is below him on the mists, created from and of the divine. The image projected on the cloud is the watery relation of the mineralised Luther found in the guise of a geological hieroglyph in the mine below.

Before describing the mountain scene in his letter, Carus first commented on the attributes of the four elements, concluding with Water. He noted its ability to reflect the perpetuity of the sky. He claims that when an individual witnesses this particular type of interminable reflection, a feeling of infinite longing is aroused. Carus lists four stages of awareness that build on one another in order to inflame this soulful longing. They are, in order of occurrence, the sensation of soaring, the development of inner stillness and clarity, the response of

⁸¹ Novalis, *Heinrich von Ofterdingen*, trans. Palmer Hilty, pp. 153-154.

melancholia, and the sense of apathy or numbness.⁸² The four phases are comparable to ever rising steps on a ladder ascending toward reconciliation with the Absolute, although the climb of the Wanderer is undertaken in the physical world as the ascension of a mountain. Carus presents us, in a sense, with an abbreviated, physio-psychological cognate of the theological doctrine the *Way of Salvation*, illustrated in the 15th Century German woodcut discussed in the previous chapters. The hand-coloured woodcut is an image of a steep mountain upon which a series of banderols have been placed to indicate the steps taken in order to achieve Christian salvation. At the foot of the mountain is a female mendicant in prayer. Jakob Böhme, widely read by the Romantics, believed that an entreaty to God took the form of an invisible river with currents that would reverse upon receipt of the cry, returning as a blessing to the suppliant. In this light, what Carus describes as longing may be understood as prayer by a religious mystic. In any case, Carus presents a theory that postulates that we are continually returning to the divine and we sense the return in longing. If this is true, then for what or whom is the Wanderer longing?

4. The Woman Before a Setting Sun

We may now turn to the subject of the other *Rückenfigur*, the *Woman Before the Setting Sun*. She is found, not on the top, but below the mountain, in the vale. The female figure stands amid a circle of stones noticeably anchored to the earth. She is located just beyond the limits of domesticity, for the moment, liberated

⁸² Carus, p. 204.

from the boundaries of the cottage garden or social salon. The stones reflect the warm hues of the evening light. Her back to us, she is obviously in rapt attention of what is before her. Crepuscular rays emanate from where the setting sun makes its final appearance before falling below the mountain peak. We cannot see the glittering orb, because the mountain blocks it. Her breast is aligned perpendicularly on the sightline between the brightest point on the mountain horizon and the viewer, her womb at the point of convergence of the rays. Her arms are held in an orant pose at her side, echoing the crimson shafts of light. She faces the monolithic mountain surrounded by smaller versions of it, remnants of geological partition. The stones are monads, mineral progeny of the distant granite mass, the well-known profile of the Brocken. She stands on a patch of earth made bright by the sun's last remaining energy. As noted in a previous chapter, the blades of grass which surround her position are strangely attracted to her. The grasses are animated by the woman's rapture.

The dark field/light field contrast inherent in the entire composition is sustained by the dramatic juxtaposition of her shadowed head and shoulders against the magnificent dusk light and the murky vertical edges at the bottom of her gown. Layers of earthly ground, rolling to the left and right create a passage of space that echoes the sense of boundlessness found in the sky of the *Wanderer*. The idea of this varied terrestrial surface is relevant to the correspondence of Friedrich's paintings with the Okenian model of the two-centred universe where, 'There are no level surfaces in the universe, no pure surfaces any more than pure lines. All surfaces are curved. For example, those of drops, of the heavenly bodies, of animals ... the idea of a surface is constantly

that of *surrounding*.⁸³ Amid the middle-ground strata on the left side of the painting, the gothic spire of a church appears as a diminutive relic, untouched by its charged surroundings. Just as nothing lies between the Wanderer and the mists, the same is true for the Woman and the fiery sunset. Each has direct access to a significant celestial event, both in an utterly Protestant relation with the divine. One casts a shadow forward onto vapour; the other casts a shadow back to the Earth. Together, the two paintings are comprised of the four elemental states. Two elements, Air and Water dictate the setting in the *Wanderer* and, Earth and Fire perform the same task in the painting of the Woman. The totality of the four elements, Ether, is represented through the presence of moist condensation in both paintings.

The cosmic matter that fills the entire universe is Ether. According to Oken, Ether by itself has no fixed pole, however; when it is separated into distinct polar masses, it becomes more condensed, substantial in a material sense.⁸⁴ For Italian physicist Giovanni Beccaria, the earth was one terminal and the cloud another, thus explaining the capacity of heavy water to maintain weightlessness in lighter air. Dense collections of cosmic matter congregate about water droplets. The mass of vapour in *Wanderer* is one charged pole, the result of the fixation of water by light, transforming Ether into a terrestrial entity made up of cosmic matter. This can only occur as the consequence of the union of polar attraction, one pole located within the vapour and the other in a separate fixed mass. The oscillation between the two fixed masses is, in essence, the conduit of divine thinking. The mist in *Wanderer* is an unstable, temporal entity dependent on the

⁸³ Oken, no. 132-135 (emphasis in the original).

⁸⁴ Oken, no. 253-264.

existence of another, similarly volatile concentration. Likewise, the crimson rays of condensed moisture in *Woman Before the Setting Sun* represent the passage of Ether by way of light from one pole to another, in this case, between the sun and the woman among the stones. Light is the vehicle of Ether, the visible revelation of the duplicity of all nature. It is the visual equivalent of magnetism. The rocky crag and the circle of stones, on and in which the Wanderer and the Woman stand, are lodestones, natural magnetic earth.

Goethe modelled his story *Die Wahlverwandtschaften* (*Elective Affinities*, 1809) on the principle of selective chemical attraction as proposed by the Swedish chemist Torbern Olof Bergman in his book *De attractionibus electivis* (1775).⁸⁵ *Elective Affinities* is a tale recounting the conflict between desire and duty in the realm of love that takes place on the grounds of a baronial estate. The author borrowed the idiom from chemistry for the title and took out an advertisement in the *Morgenblatt* on 4 September 1809 to clarify his use of the term. In the novella, Goethe defines the term *Die Wahlverwandtschaften* for his reader through a dialogue within the text as ‘those natures which, when they meet, quickly lay hold on and mutually affect one another we call affined.’⁸⁶ The book caused a scandal when it was published because of its candid view of marriage and adultery. There are aspects of the relationship between the characters that seem less like a chemical affinity than a magnetic affliction.

⁸⁵ See Jeremy Adler, ‘Goethe’s use of chemical theory in his *Elective Affinities*,’ in *Romanticism and the Sciences*, eds. Andrew Cunningham and Nicholas Jardine, (Cambridge: Cambridge Univ. Press, 1990), 263-279.

⁸⁶ Johann Wolfgang Von Goethe, *Elective Affinities*, (London: Penguin Classics, 1978), p. 54.

To modern readers, it is a stilted and maudlin effort. *Elective Affinities* is but one of many examples of how theories of chemical and magnetic force were manifest in popular culture. What is particularly relevant for our discussion, however, is how Goethe used landscape as a device with which to communicate the polarized emotional states of the characters. One of the protagonists is a landscape architect who re-designs the walking paths that connect the valleys with the hills on the property of his host with ‘resting-places and vantage-points’ along the pathways.⁸⁷ According to Hans Christian Ørsted (1777-1851), ‘magnetism, electricity, and the chemical process correspond to the three dimensions of space – magnetism to a line, electricity to a surface, and the chemical process to space.’⁸⁸ If these Euclidian principles governing energy operated on the baron’s estate, conceptually, the walking paths (lines) would act as the organizing principle upon the dynamic landscape (surface) through magnetic force which would then combine into a potent spatial amalgamation. Was this the dimension that Friedrich expressed in the two 1818 paintings?

According to the Romantic, magnetism shapes the world and the relationships within it. An engraving published in *System des Tellurismus oder Thierischen Magnetismus* by Dietrich Georg Kieser (1779-1862), illustrates the author’s theory of tellurism; the magnetic force that permeates all of nature (fig. 4.43).⁸⁹

⁸⁷ Goethe, *Elective Affinities*, p. 76.

⁸⁸ Quoted from Hans Christian Ørsted [1805], in *Naturvidenskabelige Skrifter (Scientific Papers)*, ed. Kirstine Meyer, vol. 3, (Copenhagen: Høst, 1920), pp. 103-4 in Kenneth L. Caneva, ‘The Form and Function of Scientific Discoveries,’ *Dibner Library Lectures*, (Washington D.C.: Smithsonian Institution Libraries), 16 November 2000.

⁸⁹ Dietrich Georg Kieser, *System des Tellurismus oder Thierischen Magnetismus. Ein Handbuch für Naturforscher und Aerzte*, vol. 2, (Leipzig: Herbig, 1822), image opposite p. 118.

Kieser was an acquaintance of Oken, shared his political views, and his work appears frequently in Oken's *Isis*.⁹⁰ The root of the word is the latin *tellus*; earth; thus why Carus, when discussing the restorative properties of sleep, references the tale of Antaeus, the son of Gaia who recuperated his strength through contact with his mother, Earth.⁹¹ Telluric powers emanate from the inner earth and oppose the anti-telluric powers that originate in the sun. The journey taken by telluric energy is, therefore, a vertical one. Every single organism and all inorganic matter are in a constant, shifting relationship to one or the other entity according to its telluric class. Kieser categorizes a variety of things by their inherent attraction to the telluric or anti-telluric poles and, charts their relationship to one another according to the time of day and corresponding hemispherical pole in the engraved diagram. Mid-day, the Sun, the North Pole, alkaline matter, the waking state, and intellectual thought are anti-telluric; whilst, Mid-night, the Moon, the South Pole, acidic matter, the sleeping state, and intuitive thought are telluric.⁹² The shape of the diagram highlights the elliptical nature of polar activity. According to Kieser's theory, the waking mind is under the influence of the sun and the dreaming mind, telluric earth. Therefore, Hegel's theory of the mind is in accord with this principle, as he asserts, 'In

⁹⁰ Kieser credits the basic outline of this theory to Christian Gottfried Daniel Nees von Esenbeck (1776-1858), the accomplished botanist and disciple of Schelling. Kieser appears to have tried out some of his hypotheses in *Isis* before publishing the complete volume, see *Isis*, 1819, vol. 6, no. 1, p. 184 (this issue also includes an article on Runge, and a suggested, 'Kleine mineralogische Fußwanderung in Böhmen' pp. 436-9) and 1820, vol. 1 no. 5, p. 473 (this issue includes articles by Chamisso and Steffens).

⁹¹ Carus, *Psyche*, p. 66.

⁹² Kieser, vol. 2, 1822, pp. 100-120.

dreams it is only our picture-thinking which comes into play and its products are not governed by the categories of the intellect.’⁹³

Kieser possessed a degree in medicine and, therefore, was qualified to write of the benefits of using magnetism to induce restful sleep and to heal diseases, such as rheumatic pain.⁹⁴ A passage in *System des Tellurismus* is devoted to clairvoyance (*hellsehen*), defined as ‘magnetic sleep,’ which was not greeted with the amount of scepticism that one would expect today.⁹⁵ A healthy clairvoyant is under the influence of telluric force and thus, theoretically speaking, his mind could travel forward upon the line of time, since the totality of telluric force was governed by the law of emanation and return as embodied by the shape of an ellipse. In regard to sleep, Kieser also speculates as to the nature of somnambulism as a telluric phenomenon that allows the subject to see his or her own interior thoughts without the interference of cognitive judgment. The somnambulist does not remember the walk through the house, down the stairs, or across the garden; the body takes action according to what is outside of it, whilst the mind responds to images within; Hegel’s picture-thoughts. It is as if

⁹³ Hegel, ‘Section Three: Organics,’ *Philosophy of Nature: Part Two of the Encyclopaedia of the Philosophical Sciences (1830)*, trans. A. V. Miller, (Oxford: OUP, 2004), p. 70.

⁹⁴ Kieser, vol. 1, 1822, p. 384.

⁹⁵ Heinrich von Kleist’s heroine in *Das Käthchen von Heilbronn* had the affliction of sleep-talking which Kleist based on current theories of somnambulism; see Ursula Thomas, ‘Heinrich von Kleist und Gotthilf Heinrich Schubert,’ *Monatshefte* 51, 1959, pp. 249-61 and Maria Tatar’s *Spellbound: Studies on Mesmerism and Literature*, (Princeton: Princeton Univ. Press, 1978). Hegel notes that magnetism has a place in healing as, ‘Only sick persons can be magnetized, sleep is just this gathering itself together of the organism into its simplicity, whereby it is brought to the feeling of its inner universality. But instead of this magnetically induced sleep, a healthy sleep too can produce this turning point of illness.’ Hegel, *Philosophy of Nature*, p. 440.

the subject entered a cave whose walls captured the telluric energy and reflected it back to his or her mind. Hegel himself remarked on the relationship of a somnambulist and the underworld by referencing the somnambular oracle who perches on a tripod over the entrance to a cave at Delphi.⁹⁶

The elliptical path of the cogitating and intuitive mind is one that moves towards and away from two centres which correspond with consciousness and unconsciousness, light and darkness; again, its path is one perpendicular to the earth, not horizontal. Steffens anatomically analogizes the poles through his pondering on the course of an individual's life; supposing that it is decided through the oscillating interactions of the heart with the brain, which are like two points on the arc of the ellipse – located nearer to or farther from the earth and sun.⁹⁷ The shape of an ellipse appears occasionally as an underlying structural component in the composition of Caspar David Friedrich's paintings. *Two Men looking out to Sea*, *Landscape with Rainbow* and its pendant, *Mountain Landscape with Rainbow*, are three examples. When the elliptical form does appear, the objects within the paintings are in an obvious dialectic relationship to

⁹⁶ Hegel reminds us in his *Philosophy of Mind*, p. 116. See also Kieser, vol. 1, p. 429

⁹⁷ 'Wie zwei Brennpunkte der Ellipse erscheinen nun Herz und Gehirn, und die Bahnen des individuellen Lebens sind bestimmt durch sie.' Henrik Steffens, 'Über die Geburt der Psyche ihre Verfinsterung und mögliche Heilung,' in *Beyträge zur Beförderung einer Kurmethode auf psychischen Wege*, eds. Johann Christian Reil and Johann Christophe Hoffbauer, vol. 2, (Wien: Aloys Doll, 1816), p. 264. And Friedrich Schlegel declares in *Fragment 117* of *Ideas* that, 'Philosophy is an ellipse. The one centre, which we are closer to at present, is the rule of reason. The other is the idea of the universe, and it is here that philosophy and religion intersect,' from 'Ideas,' in *Philosophical Fragments*, trans. Peter Firchow, (Minneapolis and Oxford: Univ. Minn. Press, 1991), p. 104.

one another. I am interested when this dialecticism exists but is not articulated through a conspicuous visual or narrative structure.

German Romantic science saw every living body as being twofold in character. One double endures in itself, and one is immersed in the universe.⁹⁸ The soul is a charged field that is non-focal and is expansive, moving freely between the two.⁹⁹ The male Wanderer and the female figure are linked as two fixed points joined by Ether, through nothingness, by reflection, and coupled in dreamtime. Yet, the present location of the two paintings, physically apart from one another, disallows the ultimate epiphany of their interrelated meaning.¹⁰⁰ We sense the other in each. They become lonely without each other, though neither is as profoundly isolated as the midday scene of the *Monk at Sea* (fig. 4.44, 1809). The monk is one without the other, one pole without the second; an imbalance that can bring about the most profound melancholy. There is not a complete circuit, no reflection in the mists. The monk is not meditating; he is lost. Heinrich von Kleist (1777-1811) understood the true meaning of the *Monk*; in the *Berliner Abendblätter* 13 October 1810, he wrote, 'Nothing can be sadder or more dismal than just this position in the world: the only spark of life in the vast realm of death, the lonesome centre in the lonesome circle.'

In *Woman Before the Setting Sun*, it is dusk, the time of day at the opposite extremity to the morning experienced by the Wanderer above. According to Carus, the unconscious is unaware of the present and the conscious has only a

⁹⁸ Oken, no. 94.

⁹⁹ Samuel Thomas Soemmering proposed in *Organ der Seele* (1796) that the locus of the soul resides in the brain. Schelling saw it as a scattered entity, hovering rather than static.

¹⁰⁰ *Der Wanderer über dem Nebelmeer* is in the Hamburg Kunsthalle; *Frau vor der untergehenden Sonne* in the Museum Folkwang, Essen.

momentary grasp of the past and future through the sense of remembrance and of presentiment. Dusk is the temporal form of reminiscence, and dawn of premonition. When the state of consciousness comes together with the state of unconsciousness, time is non-existent and the soul is aware of its duplicity, Ether is temporarily fixed as two poles and there is no before or after, only eternity. The Woman is a point in time, a singularity; the Wanderer is a point of time, a singularity. 'They are divine, in so far as they are time; terrestrial, in so far as they as they are evanescent moments of time,' wrote Oken, eternal in the state of unconsciousness, finite in the state of consciousness.¹⁰¹ Carus believed that the soul endures by continually changing its rudiments, forever extinguishing and rebuilding in endless metamorphosis.¹⁰² According to Carus, we feel these metamorphoses as subtle nudges at our mind, urging us to pry open the moment. A theologian would make the argument that this is God's conscience speaking to our souls through nature.

Ludwig Gotthard Kosegarten (1758-1818), collector of Friedrich's work, delivered sermons on the Baltic coast that were infused with reference to natural phenomena and plain-spoken allusions to the surrounding environs. Friedrich followed the admonition by the pastor to allow nature to speak without mediation so that the divine can reach unhindered into the soul. Moved by itinerant vapours or vanishing globes, a mental traveller shifts away from the ego's pole and towards the unknown extreme. In an alliance with Friedrich's estimation of art, Oken states in his *Lehrbuch*:

Art is the representation of the senses in Nature. The sense is, however, the last or ultimate design of Nature. Art is

¹⁰¹ Oken, no. 75.

¹⁰² Carus, pp. 19-20.

consequently the representation of *Nature's design*. That is beautiful which represents the will of Nature. But non-beautiful is that which represents real Nature by means of art. Art is one universal business. Beautiful is that, which represents the world within a fragment of the world.¹⁰³

Through positioning of the figures to the landscape in *Wanderer* and *Woman Before the Setting Sun*, Friedrich longed for us to be witnesses alongside him at the threshold of shifting metaphysical states. In painting these two *Rückenfiguren*, his intention was to 'stimulate the viewer spiritually and arouse thoughts, feelings, sensation,' visual inoculations meant to awaken longing in us.¹⁰⁴ You are the *Rückenfigur*, he is not blocking your view of the Spectre; you are witnessing the Spectre. She is not blocking your view of the sunset, you absorb the glow of the crimson rays as your outer eyes close and the inner eye focuses on a bright silhouette, the after-image. This is apparent to anyone having a direct, contemplative encounter with either of the two paintings. There are only two solitary, centrally located *Rückenfiguren* in landscapes painted by Friedrich; both were painted in 1818. The significance of the deliberate centralisation of the two figures cannot be overstated. When he wrote, 'In the conscious soul, elevated and spiritualised, voluptuousness gives rise to the mightiest of passions, including that of the greatest happiness and the greatest pain: love,' Carus provided us with one remaining explanation for the two dreamers, a connection apart from unconscious longing.¹⁰⁵

Friedrich was married in 1818 to Caroline Née Bommer. His friend, Carus, commented in his memoirs that the marriage 'did not change his life or

¹⁰³ Oken, no. 3625-3628.

¹⁰⁴ Hinz, p. 84.

¹⁰⁵ Carus, op. cit., p. 44.

personality at all,' although some of Friedrich's letters suggest this is not entirely true.¹⁰⁶ Novalis, the geologist, was steadfast in his belief that longing for the divine was identical to longing for love, all part of the great mobility of a polarised world. Carus gave biological significance to love and longing. He observed that the simplest organisms could reproduce easily by splitting in two. Carus states: 'These individual primary cells at once act as a new whole. They are immediately active like pieces of a chipped-off magnet, with their own north and south poles and their special attractions and repulsions.'¹⁰⁷ Humans, however, require the cooperation of two souls to produce a 'unique' progeny. This collaboration is assisted by the unconscious through the sensation of longing.¹⁰⁸

'We are close to waking up,' observed Novalis, 'when we dream that we are dreaming.' Knowing in conscious states that the channel to the divine is impassable, Caspar David Friedrich sought to provide a route by means of representing fragments of the will of Nature, working in the process of re-creating Nature's design. This is the reason why the two *Rückenfiguren* are compositionally centralised in the landscape; their only kin within Friedrich's painted oeuvre are from the mineral or vegetable kingdoms - mountains, crosses, and trees located at the midpoint of an arrangement. The two shapes are the *verso* of a transitory *acheiropoetos*, embodying the nature of the poles in a magnetically derived Universe; topographically located physio-philosophical entities. Figures formerly sheltered in the shade of a *repoussoir*, they are brought front and centre into the corpus, no longer responsible for the obligatory wing

¹⁰⁶ Börsch-Supan, p. 43.

¹⁰⁷ Carus, p. 45.

¹⁰⁸ Carus, p. 47.

position of spectator. The two are shelters unto themselves, shells left behind by the voyaging soul. The journey of both takes place in a fictive space that relies on the collaboration of Friedrich's remembrance of actual ground that is persistently mobile with his application of principles of the soul's development. Friedrich relies on the spectator's biological longing to lend the event the sense of authenticity, a metaphysical naturalism.¹⁰⁹

The pair is in a meta-geographical discourse with one another that, in the first instance, reads as a transmission 'across' the landscape rather than up and down. Following a more sustained examination of the two, one could reach the conclusion that they are in vertical communication with one another – linked by telluric energy on the axis drawn through the core of the earth to the sun. The fact that the two figures are clearly located in space as indices of elevation in emphatically perpendicular relationships with surface is indicative of their physiological awareness of looking up from below or looking down from above. I have argued that they belong together, in part, because of their uniqueness as centralized *Rückenfiguren* within Friedrich's oeuvre; however, *Wanderer Above the Sea of Fog* and *Woman Before the Setting Sun* might be linked because are looking at and for each other. They share not a point of view but a synoptic psycho-energetic physicality present on the vertical axis – they are penultimate Romanticized beings. These two paintings are not pendants in the conventional sense – their sizes are dramatically different in scale; however, they are affined in a way that meets other counter-part criteria. In any event, these two images are completely an optimistic vision of human development. Why did Friedrich not

¹⁰⁹ As Friedrich stated, 'the sensitive man understands and recognises it; while even the less sensitive gain some inkling of it,' quote of Caspar David Friedrich translated in Lorenz Eitner, *Neo-Classicism and Romanticism, 1750-1850*, 1970, vol. II, pp. 55-56.

include centralised staffage in his later work? Why is it that Friedrich became progressively more interested in picturing signs of the worlds of below? Was it because 'Darkness has no power, and consequently can be only the opportunity for, not the cause of anything happening'?¹¹⁰ Did Friedrich's later works represent the inevitable track of the demagogue; was it necessary to go 'underground' to avoid detection?

¹¹⁰ Oken, no. 703. Lorenz Oken stated that 'No animal develops beneath the earth, or where it is absolutely dark.' Oken, no. 1781.

V. CONCLUSION

In *German Idealism: The Struggle Against Subjectivism, 1781-1801*, Frederick Beiser uncovers a strain of objectivist thought within early German Romantic idealism that bordered on, if not crossed into the realm of realism.¹ Beiser suggests that the ideal-revisionist made the predictable distinction between the appearance of something (what we know of it from the outside) and the thing-in-itself (the inside of the thing that we don't know), whilst, at the same time, this progressive thinker made the claim that concurrent to their state of separateness, appearance and the thing-in-itself express the same entity, therefore, it was real. This union of the known and the unknown, exteriority and interiority, could be the ideal of Hegel and Steffens realized, though not through obliteration but in their permutation into a *real* object.² Henrik Steffens' obliterate model of caricature, based on social class and vocation, could not, of course, be brought to fruition except in the abstract – a *real* human could not be conjured through the comparative procedure he proposed in *Caricaturen des Heiligsten*. Further to this, viewing Hegel's 'negative unity,' as a creative rather than destructive means of expression might be the first step towards merging the ideal with the real – empirical *thinghood*. The Romantic morphological endeavour in which the exterior becomes the means with which to understand the interior of a being is an

¹ Beiser, Frederick. *German Idealism: The Struggle Against Subjectivism, 1781-1801*, (Cambridge: Harvard Univ. Press, 1992).

² Beiser, p.49.

essentially anti-enigmatic project; things are turned inside out, exposed for the world to see and understand. As I stated in the last section of the chapter on mines, Caspar David Friedrich's pairing of potency with disintegration through the *para*-pendants, *The Entrance to the Mine* and *The Vault*; and, the fact that these chthonic energetic poles are interchangeable between the two paintings is, ultimately, the meaning of the union of the two images – this is an allegory of realism; in philosophical terms, their thresholds are the meeting point of narrative diegesis and representative mimesis. Friedrich's posing of the *Hut* and the *Vault* is an encapsulation of Romantic idealism and his picturing of mundane containers of profound space performs as an exercise in Romantic realism.

The industry of mining relies on the fact that engineers and miners compel nature to conform to their purpose, a model of Fichtean will.³ If we, for the moment, accepted Beiser's argument for the ascendancy of naturalism as opposed to idealism in various literary and philosophical productions during this period, it might be that we could chart a direct connection between Caspar David Friedrich and the other great German painter of the nineteenth century, Adolph Menzel. Although Michael Fried locates a compositional restlessness within Menzel's work that he does not detect in the work of Friedrich, this is to be expected as Fried references Friedrich's wholly subjective *Woman at the Window* (1822) and declares it to be a profoundly centred, stable painting – which, in measured reality, it is not.⁴ However, Fried's project assigns a corporeal and tactile imperative to Adolph Menzel's work that, surprisingly, in light of my examination of Friedrich's fascination with the material culture of *Bergwesen*,

³ Beiser, p. 218.

⁴ Michael Fried, *Menzel's Realism: Art and Embodiment in Nineteenth-Century Berlin*, (New York and London: Yale Univ. Press, 2002), p. 89.

seems to endorse the Romantic's empirical representation of the hut, even if the *corpo*-realism is embodied in the shell of the structure not in a human figure.

The implications of the existence of the subterranean dimension in Friedrich's work are enormous. The first question that I posed in the introduction, what is the shared space that binds the two 1827 pendants together, has been answered – it is the subterranean world. What is the true identity of the structure within *The Hut in the Snow* – it is a head-frame that shelters a mine-shaft. Why would Friedrich choose to paint such a thing? What if this shared space was meant to perform as a trap, its threshold not an invitation but a barrier; a strategy to preserve the necessary distance that imparts an enigmatic visage to the work? Or, what if it is an escape route for the demagogue to return to a pre-modern existence, because 'when one is inside works of art, re-enacting them, the enigmatic quality makes itself invisible' – was painting *The Entrance to a Mine* an act of both subversion *and* submergence?⁵ By focusing on *The Wanderer Above the Sea of Fog* and *Woman Before a Setting Sun* in the last chapter, I wished to re-acquaint the reader with Friedrich's penchant to embed *self* in the landscape and, argue for the existence of a vertical dimension that links the two paintings as well as being operative within each of them separately. However, my other motivation was to establish that Friedrich's early vertically-engaged work (*The Wanderer* and *Woman Before a Setting Sun*) and early chthonic work (*Mountain Landscape with Rainbow*) were, in effect, sanguine productions; whereas, his later works have a more profound and uncertain quality to them. This suggests to me that the intensity of meaning in his later works deepened and

⁵ Theodor W. Adorno, *Aesthetic Theory*, trans. Robert Hullot-Kentor, (Minneapolis: Minnesota Univ. Press, 1996), p. 176.

that Friedrich looked to the prosaic tools and constructions of the miner to express this.

Like the new interest in the unplumbed depths of the oceans that we observe in current times, the exploration of caves in Friedrich's day generated a kind of cultural localism that co-existed with the broader, farther-reaching excursions into other worlds undertaken by his contemporaries such as Alexander von Humboldt. Friedrich chose to glean from the visual culture documenting local rather than global natural histories or material cultures. Friedrich's *Skeletons in the Cave* did not engage in the type of anthropomorphization of cave features that the aquatint of the Adelsberger Grotte within Rosenmüller's study did; instead, the artist seems to have been paying special attention to how they really appeared to be. His was an empirical response to a cave that he had visited and, his composition was informed by a relatively sedate representation of a cave published in a child's encyclopaedia.

What makes the images that I have examined so intriguing are their reducibility and legibility as members of a catachthonic culture that has gone previously unnoticed in the Friedrich scholarship. Because of the richness of the *Bergwesen* culture, the dark, murky space within the ruin of *The Entrance to a Mine* could denote unfathomable space, Hölderlin's Orcus, the *Götterdämmerung* of the Edda, or the sinister gas of toxic black damp – the geological, poetic, mythological, and historical, all at once. Caspar David Friedrich has rarely expressed a visual interest in dwellings; his pictured buildings are almost always in ruin, inhospitable to habitation. Will this ruin be re-built into a forge instead of an entrance? Is it a response to the devastating consequences in the natural world that the expansion of the mining industry has

wrought; or is it an expression of Romantic populism; could it be both? An image such as the head-frame might be a part of a greater project undertaken by Friedrich, the typological inventory of the junctures of natural, metaphysical, and man-made verges. That is the next step in this research, a comprehensive investigation into that question.

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