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MEGA IV/31: Natural-Science Notes of Marx and Engels, 1877–1883

Pradip Baksi

Karl Marx/Friedrich Engels: *Gesamtausgabe (MEGA)*. Edited under the auspices of the Internationale Marx-Engels-Stiftung. Section IV, *Exzerpte, Notizen, Marginalien*. Volume 31: *Naturwissenschaftliche Exzerpte und Notizen. Mitte 1877 bis Anfang 1883*. Editorial team: Anneliese Griese, Friederun Fessen, Peter Jäckel, and Gerd Pawelzig. Berlin: Akademie-Verlag. In two partial volumes. ISBN 3-050-003399-1.

MEGA IV/31 consists of two books: Text and (text-critical) Apparatus. The texts are divided into two parts. Part I contains Marx's incomplete excerpts and notes on inorganic and organic chemistry, and electricity (3–473). Part II contains Engels's excerpts and notes on parts of physics and ecology (475–614). The text-critical Apparatus contains a general introduction to the volume; separate introductions to the subsections of the texts; inventories of variant readings, corrections and comments—everywhere indicating the corresponding page and line number of the text; a name index; indexes of the literature used by the authors and the editors—and finally, a subject index (615–1055). The technical standards of editing and production are veritable examples for others to follow.

MEGA IV/31 provides new materials related to the hitherto little-noticed natural-science studies of Marx, and some materials

related to Engels's *Dialectics of Nature*. These materials are of interest for the study of the interrelationships of the natural and social sciences of nineteenth century, and, through them, for the study of the relations of the sciences with the modern movement for socialism.

MEGA IV/3: Text

1. Marx's excerpts and notes on chemistry are spread in six notebooks. They appear in the present volume as: [1] On the atomic theory (5–20); [2] Tabular summary of inorganic and organic chemistry (21–151); [3] Tables of chemistry (153–204); [4] Tables of inorganic and organic chemistry I (205–376); [5] Tables of inorganic and organic chemistry II (377–442); and [6] Formulae of organic chemistry (443–73). The sources of these excerpts and notes are Hermann 1874; Jukes 1872; Kuhne 1868; Meyer 1872; Ranke 1875; Roscoe 1873; Roscoe and Schorlemmer 1877 and 1879; Schorlemmer 1874; and Witzschel 1858. While working on any single topic, Marx always used more than one of these sources. That is why it is not possible to establish a one-to-one correspondence between a single source and a single text. The texts do not contain any independent remark or comment of Marx.

The excerpts titled “On the atomic theory”—Marx's notebook 1 contain discussion of: (1) the atomistic principles propounded by John Dalton (1766—1844); (2) the related stoichiometric laws of combination of chemical elements; and (3) the determination of atomic and molecular weights of elements and compounds, including the law of Joseph Louis Gay-Lussac (1778–1850), and the principle of Lorenzo Romano Amadeo Carlo comte di Quaregna e Ceretto Avogadro (1776–1856), together with such follow-up corollaries like the relation between vapor density and molecular weight, accompanied by illustrations.

Marx's chemistry notebooks 2–6 contain excerpted tables for nonmetals and metals; the periodic system of Julius Lothar Meyer (1830–1895); quantitative discussions of valence, discussions about oxides, hydroxides, mineral acids, and salts; tables

for various groups of organic compounds like the paraffins, carbohydrates, aromatic compounds, alkaloids, uric acid and related substances, carbonyl and sulfo-carbonyl compounds, etheric and anhydride substances, ammonia and its derivatives, various carboxylic acids.

In the present volume, Marx's chemistry excerpts are followed by his excerpts on electricity from Hospitalier 1882. These excerpts contain discussion on: (1) sources of electricity such as voltaic piles and galvanic batteries, and the physical nature of their functioning; (2) the characteristics of electric current, Ohm's law, and related issues; and (3) the units of measure for electric current, voltage, resistance, etc.

It may be assumed that Marx made these notes about the facts and theories of chemistry and electricity for some possible future use. His death in 1883 foreclosed the realization of such possibility.

Engels's excerpts and notes are from d'Alembert 1743, Fraas 1847, Helmholtz 1847, Thomson 1864, Thomson and Tait 1867, and Wiedemann 1874. These are followed by a note on heat and a note on electric units by Engels. He used most of these excerpts and notes (except the excerpts from Fraas 1847) in the following articles of his *Dialectics of Nature*: "The Measure of Motion—Work," "Tidal Friction. Kant and Thomson-Tait," "Heat," "Electricity," and "The Part Played by Labour in the Transition from Ape to Man" (see *MECW* 25:378–464). The excerpts from Fraas 1847 indicate that in this period Engels continued his study of evolution of the species and of changes in environment. Any further use of the Fraas excerpts by him, however, remains untraced.¹

MEGA IV/31: Contexts

The sources of Marx's chemistry notebooks date back to the period 1858–1879. Their conceptual system corresponds to the stage of structural chemistry (ca. 1800–1870) (see Kuznetsov 1977a, 1977b). The emergence and development of structural chemistry coincided with the transition from the manufactory stage to the factory system of industrial production. It stimulated

and demanded the processing of great quantities of substances of mineral, vegetable, and animal origin. These circumstances, together with the discovery of isomerism and polymerism in the early nineteenth century, created the possibility of solving the problem of genesis of properties of substances depending on their structure. This stage in the history of chemistry was governed by the introduction of atomic and molecular theories, the theories of structure and bonds, and the periodic systems. Marx's excerpts and notes mirror all these developments, at least in part. For instance, in the case of periodic systems, Marx was acquainted with the work of Lothar Meyer, but not with that of Dimitry I. Mendeleev (1834–1907).

Marx's interest in the chemistry of his time was directly connected with his study of agriculture and industry under capitalism. Already in 1853, Marx noted

that changes in soil's fertility and its degree in relation to society . . . depend on changes in the science of chemistry and its application to agronomy. (Marx to Adolf Cluss, 5 October 1853, *MECW* 39:382)

In 1866, for the treatment of ground rent in what was to become his *Capital*, he considered "the new agricultural chemistry in Germany, in particular Liebig and Schönbein . . . to be "more important . . . than all the economists put together" (Marx to Engels, 13 February 1866, *MECW* 42:227). In *Capital* III, part VI, chapter 39, we read on soil fertility:

Aside from climatic factors, etc., the difference in natural fertility depends on the chemical composition of the top soil, that is, on its different plant nutrition content. However, assuming the chemical composition and natural fertility in this respect to be the same for two plots of land, the actual effective fertility differs depending on whether these elements of plant nutrition are in a form which may be more or less easily assimilated and immediately utilised for nourishing the crops. Hence, it will depend partly upon chemical and partly upon mechanical

developments in agriculture to what extent the same natural fertility may be made available on plots of land of similar natural fertility. Fertility, although an objective property of the soil, always implies an economic relation, a relation to the existing chemical and mechanical level of development in agriculture, and, therefore, changes with this level of development. (*MECW* 37:644).

Elsewhere in the same volume (chap. 46), Marx remarked that “the real natural causes leading to an exhaustion of the soil . . . were unknown to all economists writing on differential rent owing to the level of agricultural chemistry in their day” (767). On the role played by modern chemistry in the development of the capitalist mode of production, he wrote:

Every advance in chemistry not only multiplies the number of useful materials and the useful application of those already known, thus extending with the growth of capital its sphere of investment. It teaches at the same time how to throw the excrements of the process of production and consumption back into the circle of the process of reproduction, and thus, without any previous outlay of capital, creates new matter for capital. Like the increased exploitation of natural wealth by the mere increase in the tension of labour power, science and technology give capital a power of expansion independent of the given magnitude of the capital actually functioning. (*MECW* 35:601).

The contemporary developments in technology, emanating, from the sciences of materials, information, life, and environment, fully corroborate these observations of Marx.

It is evident from what has been indicated above that Marx’s study of chemistry predates his excerpts and notes of 1877–1883 published in the present volume. His London Notebooks of 1850–1853, manuscripts on political economy, and correspondence bear testimony of his direct or indirect exposure to at least some of the works of James Finlay Weir Johnston (1796–1855), Justus Freiherr von Liebig (1803–1873), August Wilhelm von Hofmann (1818–1892), Auguste Laurent (1807–1853), Christian

Friedrich Schöbein (1799–1868), Charles Frédéric Gerhardt (1816–1856), Charles Adolphe Wurtz (1817–1884), and Friedrich August Kekule von Stardonitz (1829–1896) (see *MEGA* II/3.6:2307; II/4.2:753, 786; IV/9:110, 172–213, 276–317, 372–86; *MECW* 34:263; 35:313 n. 2; 38:476; 42:227, 232, 382–83, 385, 387). Professor of chemistry in Manchester, friend and associate of Marx and Engels, Carl Schorlemmer (1834–892) greatly influenced Marx’s study of chemistry. Schorlemmer was a student of Robert Wilhelm Bunsen (1811–1899), Heinrich Will (1812–1890), and Hermann Kopp (1817–1892) (see Engels on Schorlemmer in *MECW* 27:304–6).

Some of the sources of Marx’s chemistry notebooks mirror his interest in the interfaces of chemistry and the proximate sciences of physics (Witzschel 1858), physiology (Hermann 1874, Kuhne 1868, and Ranke 1875), and geology (Jukes 1872). Some of his notes on physics (Hospitalier 1882) have been included in the present volume. Others will be included in *MEGA* IV/10, 18, 22. His notes and excerpts on physiology will be included in *MEGA* IV/18, 23. Some of his notes and excerpts on geology, soil science, and agricultural chemistry have been published in *MEGA* IV/6, 8–9. Yet others will be included in *MEGA* IV/17–18, 26–28 (see Jäckel and Krüger 1997, 95–98). Some of his mathematical manuscripts and notes (Marx 1968), as well as his technological notebooks (Marx 1981, 1982), have been published separately. These will be included in *MEGA* I/28 and IV/10, 23, 30. One of the editors of the present *MEGA* volume has elsewhere indicated how Marx’s study of physiology provided some of the sources of his excerpts on inorganic and organic chemistry (Jäckel 1997). It may be mentioned here that Marx was alert to the emerging discipline of biochemistry already in 1868 (see *MECW* 43:162). Interest in the chemical composition of minerals connects Marx’s study of chemistry and geology. In the section on anhydrides, in his “Tables of inorganic and organic chemistry I,” he took notes from Jukes 1872, 20–23. This connection would again resurface in his yet to be published geological excerpts on crystallization and the corresponding chemical reactions.

Marx’s excerpts from Hospitalier 1882 document his interest

in electricity. The year of publication of this book coincided with the Second International Exhibition of Electrical Technology, held at Munich. Long before this, back in July 1850, Marx was convinced that electricity was going to supersede steam as the source of energy for industry and transport (see Liebkecht 1896 [1978], 65). In April and May 1851, he discussed with Engels and Roland Daniels the possible use of electricity in agriculture, in the context of an article published earlier in *The Economist* (see Marx to Engels, 5 May 1851, and Engels to Marx, 9 May 1851 in *MECW* 38:344–45, 350–51; Roland Daniels to Marx, 12 April and 25 May 1851 in *Voprosy Filosofii*, no. 5 [1983]:109, 115–16; and “Remarkable Discovery—Electricity and Agriculture,” *The Economist* 3, nos. 17–18 [26 April and 3 May 1845]). In his discussion entitled “The Division of Labour and Mechanical Workshop. Tool and Machinery” in his *Economic Manuscripts of 1861–63*, Marx inserted an excerpt “Electromagnetism” (*MECW* 33:457 and 462), from *The Industry of Nations. Part II* (London 1855), a report of the Great Exhibition held at London in 1851 (the editors have inadvertently mentioned it as a report of the Paris World Fair of 1861; see *MEGA* IV/31:641). This excerpt mentions the use of electromagnetic telegraphic signals in the United States. The excerpts from Hospitalier included in *MEGA* IV/31 indicate a rekindling of Marx’s interest in the theoretical and practical knowledge of electricity.

2. Engels’s study of the natural sciences has received the attention of interested investigators for quite some time.² He worked on the *Dialectics of Nature* from the beginning of 1873 to the middle of 1882. Between 1876 and 1878 he wrote the polemical treatise *Anti-Dühring*. His physics excerpts and notes published in Part II of the texts also belong to this period. The editors of *MEGA* IV/31 have suggested that these excerpts indicate a certain shift in his conceptual orientation around 1879/1880. After a break in the writing of the chapter “Dialectics” (in the *Dialectics of Nature*), Engels began a further critical analysis of the theoretical developments in the natural sciences, starting with theoretical mechanics. For this he made intensive use of Thomson and Tait 1867, and of Helmholtz 1847.

He raised the issue of Helmholtz's strictly mathematical derivation of the principle of conservation of energy, but was more favorably inclined towards the philosophically oriented mode of argumentation of Lothar Meyer (see *MEGA* I/26:183, 195; IV/31:632).

In the years 1881–82 Engels intensively studied the theory of electricity from Wiedemann 1874. The impulse for this came from the First International Exhibition of Electrical Technology and the First World Congress of Electricians, held simultaneously in Paris in September 1881. The industrial revolution was entering into the phase of electrification around this time. Up to 1879–80, Engels was concerned with the attainments of nineteenth-century science. Now he had to take stock of a new phase of the relations between science, material production, and culture in general.

The publication of the natural-science excerpts and notes of Marx and Engels in one volume for the period under consideration offers us an opportunity to compare their close approaches toward, and distinct styles of, processing the data and theories of the sciences.

Conclusion

MEGA IV/31 documents only a phase and some aspects of Marx's and Engels's study of the natural sciences. When the totality of Marx's natural-science related notes and excerpts are published, it is only then that the students of history of science and socialism will be able to arrive at a comprehensive assessment of their role in the history of human knowledge and action. As of now, the editors of *MEGA* IV/31 have done a great job for us. They have traced the evolution of Marx's natural-science-related ideas through his doctoral dissertation (1840–41), *Economic and Philosophical Manuscripts of 1844*, *The Holy Family* (1845), *The German Ideology* (1845–46), and *Capital I* (1867), with the help of his voluminous correspondence. Marx's study of the natural sciences was influenced by his study of the philosophical materialism of antiquity, of the seventeenth and eighteenth centuries, of Hegel, Feuerbach, Fourier, and Saint-

Simon. Much of this is common ground. Of special interest, however, is Marx's access to Aristotle via Hegel. Marx's Aristotle studies have been documented in *MEGA* I/1, 2; II/1–5; and IV/1, 7–9. Marx's treatment of the labor process and political economy was not oriented on classical mechanics. Here a possible influence could have come from Aristotle, who was oriented toward the organic—as distinct from the mechanical—facts. The influence of Aristotle (mediated through Hegel) also remains plausible as a source of inspiration for Marx's journey through the natural sciences, and for his attempts at comparing the characteristic forms of the natural and social sciences (*MEGA* IV/31:634–38). It is on record that Marx considered Aristotle to be the first great thinker to have analyzed the many forms of thought, society, and nature (*MECW* 35:69).

Marx's excerpts on the history of technology in 1851 show that his interest in the natural sciences first centered around the mechanical theory of heat propounded by the German physician and physicist Julius Robert von Mayer (1814–1878), and physiologist and physicist Hermann Ludwig Ferdinand von Helmholtz (1821–1894).³ Marx was also familiar with the earlier theory of heat presented in Poppe's book of 1830. In the 1860s Marx dealt with the mechanical theory of heat and the atomistic conception underlying it. He read some of the same literature that Engels used. In a letter to Engels dated 31 August 1864, Marx described the English jurist and physicist William Robert Grove (1811–1896) as the most philosophical among the English (and even German!) natural scientists (*MECW* 41:553).

The editors of *MEGA* IV/31 have rendered a great service by supplementing their survey with searches into the partially reconstructed personal libraries of Marx and Engels.⁴ They have found a handed down copy of the 4th edition of John Tyndall's *Heat, a mode of Motion* (London 1870), containing many red pencil markings in Marx's hand. Between the end of 1875 and beginning of 1876 Marx copied excerpts from Adolf Fick's book on the forces of nature in their interrelations (Fick 1869). These excerpts also deal with the atomistic foundations of the mechanical theory of heat.⁵ Marx's physiology excerpts of March–May 1876

contain larger corresponding passages.⁶ In December 1878 he came back to the same problem, studied Emil Heinrich du Bois-Reymond (1818–1896) on Leibnitz's contributions to modern natural science (Bois-Reymond 1870), and Leibnitz and Descartes in the originals.⁷

A copy of Ernst Mach's book on the history and origin of the principle of conservation of energy (Mach 1872), filled with many markings, has also been located in Marx's library. Marx mentioned this publication in a notebook of 1875 and in a list of books dated 1877.⁸ Marx took note of Mach's treatment of Preyer 1873 on life, and again dealt with the recognized results of Mayer and Helmholtz on the foundations of the principle of conservation of energy. Marx's underlines in Mach's book concern the details of physics and history of science and Mach's critique of the mechanistic view of nature. Marx made no explicit comment on Mach.

Marx's interest in Darwin is well known (see *MECW* 41:232, 246–47). He was of the opinion that Darwin helped refute teleology in natural science and supplied the natural-historical foundations for scientific study of human society. In his *Economic Manuscripts of 1861–63*, he used Darwin's discovery of geometrical progression in the animal and plant kingdom for a natural-historical refutation of the Malthusian theory of human population, which, incidentally, was based upon Anderson's theory of rent and was refuted by Anderson himself (*MECW* 31:350–51). In these manuscripts and in *Capital I*, Marx—referring directly to Darwin—pointed to the analogous character of the differentiation of the organs of living beings in the course of evolution and the gradual changes of the working tools of human labour (*MECW* 33:387–88; 35:346, 375).

Marx noted the concept of geological formation from Johnston 1851 (*MEGA* IV/9:32, 37–39). In 1863 he emphasized the analogy between geological and socioeconomic formations, when he wrote:

Just as one should not think of sudden changes and sharply delineated periods in considering the succession of the different geological formations, so also in the case of the

creation of the different economic formations of society. (*MECW* 33:442).

His excerpts from Lyell 1863 are from the same year. In 1878 Marx began extensive geological studies, starting with Jukes 1872, Yeats 1872, and Johnston 1877.

During the last years of his life, besides the natural sciences, Marx also studied ethnology, land relations, economics, world history, prehistory, ancient history, and mathematics. His chronological excerpts on world history from Schlosser 1844–1857, and the ethnological excerpts starting with Morgan 1877 originated in this period. The editors of *MEGA IV/31* could have mentioned Marx's mathematical manuscripts in their extensive historical introduction, in view of the symbiotic relations between classical mechanics and classical analysis. In these manuscripts (Marx 1994),⁹ we come across Marx's exposure to d'Alembert, Descartes, Euclid, Euler, Lagrange, Leibnitz, Newton, and the Newtonians like Maclaurin and Taylor, among others.

In view of the unfinished character of Marx's study of the various disciplines of his time, any analysis of his relation to them is bound to remain open-ended. This seems to be in the fitness of things also in view of the requirement that the relation of socialism with the sciences of civil society has to remain open-ended. To consider this relation closed is to make socialism dogmatic and utopian. The task before the forces of socialism today, as always, is to engage in the study of all the sciences in all their possible interconnections, following Marx's lead. Only such study can give shape to an appropriate guide to action for today and tomorrow.

Kolkata, India

NOTES

1. For Marx on Fraas 1847, see *MECW* 42:558–59.
2. See Engels 1925 and 1927, Kedrov 1974, *MECW* 25, *MEGA I/26*, and Griese und Pawelzig 1995.
3. See Karl Marx, Notebook 15, Marx-Engels Archives, International Institute for Social History, Amsterdam, shelf-mark B56, 6–8.

4. See Vorauspublication zu *MEGA IV/32*. 1999. *Die Bibliotheken von Karl Marx und Friedrich Engels. Annotiertes Verzeichnis des ermittelten Bestandes*, edited by Hans-Peter Harstick, Richard Sperl und Hanno Strauß in cooperation with Gerald Hubmann, Karl-Ludwig König, Larisa Mis'kevich, and Ninel' Romyanseva. Berlin: Akademie-Verlag.

5. See Karl Marx, Notebook 116, Marx-Engels Archives, International Institute for Social History, Amsterdam, shelf-mark B127.

6. See Karl Marx, Notebooks 119–21, Marx-Engels Archives, International Institute for Social History, Amsterdam, shelf-mark B130–B132.

7. See Karl Marx, Notebook 136 and Notebook 152, Marx-Engels Archives, International Institute for Social History, Amsterdam, shelf-mark B148, B149.

8. See Karl Marx, Excerpt from 1875, Russian State Archive, shelf-mark f.1 op.1, d.3601; Notebook 131 Marx-Engels Archives, International Institute for Social History, Amsterdam, B139.

9. See Marx 1994 for comprehensive English and Russian editions. Other partial editions exist in English, French, German and Italian. Marx's mathematical manuscripts will be published as *MEGA I/28* and *IV/30*.

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Origins of Geometrical Thought in Human Labor

Paulus Gerdes

*A new book from MEP Publications, *Awakening of Geometrical Thought in Early Culture* by Paulus Gerdes (2003), traces the origins of geometrical thought to human labor in producing tools, utensils, and other objects of daily use. Gerdes, a leading specialist in ethnomathematics and chair of the Commission on the History of Mathematics in Africa of the African Mathematical Union, links these early labor processes to the origins of aesthetic appreciation in early culture and demonstrates their survival among indigenous peoples even through the long period of colonization. The famed mathematician Dirk Struik argues in the foreword that the ideas in this book can be applied widely in improving school instruction in mathematics. We present here a slightly modified excerpt constructed from the first, second, and third chapters of the book.*

Did geometry have a beginning?

“Did geometry once have a beginning?” is a question that Julian Coolidge implicitly raises when he writes in his *History of Geometrical Methods* (1963), “Whatever be our definition of the *Homo sapiens*, he must be accorded some geometrical ideas; in

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fact, there would have been geometry if there had been no *Homines sapientes* at all” (1). Geometrical forms appear both in inanimate nature and also in organic life, and this phenomenon may be explained as a consequence of mechanical and physiological causes. Apart from this mechanical necessity—so asks Coolidge—what is the earliest example of an intentional geometrical construction? Maybe the making of a cell structure of the honey bee, “if we avoid metaphysical difficulties over the problem of the freedom of the will”? (1). No, the honeybee only optimizes, but “the ablest geometer among the animals is surely the spider” that weaves such beautiful (!) webs (2). According to Coolidge, geometry exists outside humans and their activities. Geometry is eternal. Coolidge’s history of (human?) geometrical methods begins completely arbitrarily in Mesopotamia,¹ as he is lacking any criterion to find out when or which human beings became able to observe or perceive geometrical forms in nature.²

Does geometry equal deductive geometry?

Quite often it is said that geometry started in ancient Egypt.³ Problems of field measurement led to a series of mostly only approximate formulas, but as Leonard Blumenthal asserts in his *Modern View of Geometry*, “the Egyptian surveyors were no more geometers than Adam was a zoologist when he gave names to the beasts of the field” (1961, 1). In his view, geometry emerged as a science as soon as it became *deductive* in ancient Greece. Even if one agrees to identify geometry with deductive geometry, another doubt arises: were not pre-Greek observations of, and reflections about, space rarely or never deductive? And does an induction not presuppose a deduction?

Also Herbert Meschkowski begins his well-known book *Evolution of Mathematical Thought* (1965) with Euclid’s *Elements*. He argues that the first childish steps were surpassed with the development of a rigorous system of mathematical proofs. Although it might be true that the ancient Egyptians and Babylonians had discovered quite a lot of theorems, nevertheless “these insights were acquired by *intuition* or by *direct observation*” (emphasis added). The transition from intuition and direct

observation to the rigorous system of mathematical proofs remains without explanation and appears therefore absolute. And should not in particular this transition—if it had taken place in reality—have been one of the most important transformations in the evolution of mathematical thought? Now this transition seems to be a (nondialectical) leap. On the other hand, would, for example, the so-called Theorem of Pythagoras have been found through mere intuition? Or would it have been the result of pure direct observation?

Still in the dark: What is geometry?

Raymond Wilder, the late chairman of the American Mathematical Society (1955–1956) and of the Mathematical Association of America (1965–1966), stresses in the chapter on geometry in his book *Evolution of Mathematical Concepts* that “instead of looking for miracles or gods or superhuman individuals” in order to understand the level of Greek geometry, one should try to find the *continuous line* that leads from Egyptian and Babylonian geometry to Greek geometry (1968, 88). If one agrees, then one may still raise the question whether this line started in the ancient Orient or still earlier elsewhere. Wilder’s answer remains in the dark: “There was a time” [where and when?] “when mathematics included nothing that one would place in a separate category and label geometry. . . . For at that time mathematics consisted solely of an arithmetic of whole numbers and fractions, together with an embryonic (albeit quite remarkable) algebra” (88). Would fractions have emerged earlier as the first geometrical concepts? If so, what then is geometry?

Organizing spatial experiences

Contrary to Blumenthal and Meschkowski, the well-known geometer and didactician of mathematics Hans Freudenthal evaluates in a completely different way the significance of the Greek deductive method when he notes forcefully: “Rather than as a positive element, I am inclined to view the Greek efforts to formulate and prove knowledge . . . by means of clumsy methods and governed by strict conventions, as a symptom of a terrifying

dogmatism” that until today has retarded and sometimes endangered the spread and dissemination of mathematical knowledge (1980, 444). In Freudenthal’s view, geometry did not begin late in history with the formulation of definitions and theorems, but as early as the organization of the spatial experiences that led to these definitions and theorems (278).

Why, when, and where did this organizing of spatial experiences begin? Or, which human beings are able to perceive geometrical forms and relationships?

Who is able to perceive geometric forms and relationships?

Howard Eves, in his paper “The History of Geometry,” answers the question, “Which human beings are able to perceive geometric forms and relationships?” in the same way as Coolidge: “All.” However, he presents other reasons: “The first geometrical considerations of Man . . . seem to have had their origin in simple observations stemming from *human ability* to recognize physical form and to compare shapes and sizes” (1969, 165). Here he presupposes the ability to recognize and compare forms as a natural, a once-and-for-all given quality of human beings. Consequently, it turns out to be relatively easy to explain the origin of early geometrical concepts. For instance, the outline of the sun and the moon, the shape of the rainbow, and the seed heads of many flowers, etc., led to the concept of circles. A thrown stone describes a parabola; an unstretched cord hangs in a catenary curve; a wound-up cord lies in a spiral; spider webs illustrate regular polygons, etc. (168). So far, Eves’s position may seem empiricist: the properties that are common to different objects are of an immediately visible and perceivable character. This perception remains mostly passive. Nevertheless he notes, “Physical forms that possess an *ordered* character, contrasting as they do with the haphazard and unorganized shapes of most bodies, *necessarily* attract the attention of a reflective mind—and some elementary geometric concepts are thereby brought to light,” leading to a “*subconscious geometry*”⁴ (166; emphasis added). But how do people know which forms possess an ordered character? Or better still, why and how did humans necessarily

learn to discover order in nature? Why does the “subconscious geometry” transform itself in ancient Egypt and Mesopotamia, as Eves asserts (167), into “scientific geometry”?⁵

These questions indicate already how Eves’s position may be dialectically sublated (*aufgehoben*): in order to geometrize, not only are geometrizable objects necessary, but also, to consider and perceive these objects, the ability to abstract all their other properties apart from their shape is also needed. This ability is the result of a long *historical development based on experience*, to paraphrase Frederick Engels.⁶

The birth of geometry as a science

It may be said that geometry arose from the needs of human beings. The basic ideas of lines, surfaces, angles, polygons, cubes, spheres, etc., are all, in one way or another, “borrowed” from reality, observes Engels (1987a, 37). The important question is how were they borrowed from reality? In other words, how did the capacity to *geometrize* develop historically?

In his study *Dialectics of Nature*, Engels gave a hint about the direction in which we should look for an answer. As their intelligence grows in their creative interplay with nature, human beings develop their capacities of reflection, observation, and analysis. Human labor plays a fundamental role in this process. Geometrical ideas and relationships are *elaborated* by human beings (1987b, 476, 511).

Broad outline. First approximation

Inspired by Engels’s reflections, a series of historians, mathematicians, and philosophers stress, in broad outline, that geometry arose from practical life, from the effort to satisfy human needs. Its transformation into a mathematical theory required an immense period of time (see, e.g., Aleksandrov 1977, 22).

Geometry emerged as an empirical, experimental science. In the interaction with their environment, the people of the Old Stone (Paleolithic) Age arrived at their first geometrical knowledge (see, e.g., Struik 1948 and 1967; Hauser 1955, 11;

Wussing 1979, 31). The process of the elaboration of abstract representations of spatial relationships initially took place extremely slowly (Molodski 1977, 23). After having collected sufficient factual material with respect to the “simplest” spatial forms, it became possible—under special societal conditions, as, for example, in ancient Egypt, Mesopotamia, and China—to systematize the collected factual material (Ruzavin 1977, 39). With this systematization, geometry started its transformation from an empirical science into a mathematical science, achieving a first completion with Euclid’s *Elements*: geometry as a “mathematical science with its logical structure—proving of affirmations—and the abstraction of the given object from its initial contents” (Aleksandrov 1974, 47).

*Emergence of geometry as the perception
of spatial forms. Second approximation*

The development that led to the transformation of geometry from an empirical science to a theoretical science was, according to Aleksandrov (1974, 47) and Molodski (1977, 23), long and complex. Material objects and their relationships existed already much earlier than *Homo sapiens*. The circular appearance of the sun and moon, the smooth surface of a lake, the straightness of a beam of light, etc., were always present and gave people the possibility of observing them. But exact circles, straight lines, or triangles never exist in nature. The chief reason, in Aleksandrov’s view, that people gradually became capable of working out geometrical concepts lies in the fact that human observation of nature was not a passive but an active one in the sense that, to meet their practical needs, human beings made objects more and more regular in shape. When they built their dwellings, enclosed their plots of land, stretched bowstrings in their bows, modeled their clay pots, etc., they discovered that a pot is curved, but a stretched bowstring is straight. In short, stresses Aleksandrov, human beings “first gave form to their material and only then recognized form as that which is impressed on *material* and can therefore be considered in itself as an abstraction from the material” (1977, 10; emphasis added). As human beings made more

and more regular shapes and compared them with one another, they learned to perceive “form unattached from the qualitative particularity of the compared objects” (Molodschi 1977, 23). Once capable of recognizing the form of the objects as such, people could make products of better quality, which, once again, contributed to a more precise elaboration of the abstract concept of form. The dialectical interplay between active life and abstract thinking constitutes the motor of the development of geometry.

An example of the influence of labor on the emergence of early geometrical notions

In his study “Numbers in Paleolithic Graphic Art and the Initial Stages in the Development of Mathematics” (1977–1979), Frolov analyzes important aspects of the emergence of the earliest geometrical notions in history. Archaeological and paleoneurological research shows that not only *Homo sapiens* in the Upper Paleolithic, but already their precursors of the Mousterian, possessed well-developed speech and quite a high level of abstract concepts. Already before labor had had a considerable influence on the development of thinking, hand axes became smaller and more elegant, taking on a geometrically regular and symmetrical shape. To produce them, a sequence of multiple and varied work operations was necessary, which led to a change in the higher mental functions, like attention, memory, and language. It was not accidental that gradually a symmetrical shape was chosen: symmetry of the cutting edge reduces the resistance of a hard body, diminishes friction, requires less muscular effort, etc.; a *symmetrical* shape was, therefore, the most rational. In other words, the first stages of tool-making activity show that a symmetrical shape is not an *imitation* of symmetrical forms in nature, but rather that it was attained in the course of the production traditions of thousands of generations. The formation of the concept of symmetry was dialectical. A significant step took place: the most rational form became what was considered beautiful; the symmetrical shape increasingly acquired an *independent, technical, and aesthetic* significance (Frolov 1977/78, 148–52; see also Breuil and Lantier 1959, 215ff).

The Mousterians already fabricated more than sixty types of tools. They also knew how to build dwellings for long occupancy, and made the first attempts at depiction. In particular, a piece of bone, more than 50,000 years old, found at La Ferrassie in France, was covered with groups of fine parallel notches, provoking various speculations. Alexei Okladnikov interprets these as the “first ornamental compositions on our planet,” as a decisive step in the development of art, and the logic of abstract concepts. He writes that the creator of these notches

was capable of overcoming the inertia of long-term mental stagnation and the chaos of associations. He brought order into the stormy chaos of impressions. From them he selected what was significant for him, and expressed it in the abstract form of symmetrically arranged geometrical lines. Clarity in place of the unclear and diffuse, order instead of disorder, logic in place of cloudy sensations and flashes: here is the objective meaning of this most ancient specimen of ornamentation. (cited in Frolov 1977, 155)

Frolov regards this composition of groups of parallel notches as a first “*mathematical structure*,” which emerged after many hundreds of thousands of years of practical application of identical groups of rhythmic blows to obtain symmetrical tool shapes from stone, and after numerous experiments in working bone with cutting tools that left incisions. This is a possible interpretation, but it does not clarify why the notches were carved exactly parallel to one another. Would the thinking of their creator already have been sufficiently independent, sufficiently freed from matter to have been able to conceive such a pattern of parallel notches? Or did the Mousterians perhaps have other working experiences in which they found parallel lines? The search for other possible contexts is further stimulated when Frolov observes about the paintings in the caves of the Mousterians:

The use of the time factor in the “development” of rock compositions in the depths of caves and the “winding” of scenes on many places on the cylindrical surfaces of mobile objects is of particular interest. . . . The genesis of

rectangular figures in Paleolithic art reflected, in . . . particular, the existence at that time of concepts about the areas of objects. (1978, 75)

But whatever could have been the reason for the development of the idea of the area of an object?

Parallel lines, spirals, right angles—in what other contexts could these concepts have emerged?

An unexplored field: Geometrical concepts in weaving

In his famous study *Science in History*, Bernal suggests where we might look for an answer:

The idea of a right angle existed certainly before building and, probably, even before textile weaving. Among the mural paintings in the caves of Lascaux one encounters rectangular figures divided as a little bit irregular chess board, in which the squares are painted alternately in different colours. The most probable origin of these drawings may be found in the art of interlacing, that as we know was already really practiced during the Paleolithic. (1971, 251)

Not only the idea of a right angle, but also the notions of parallel lines and of spirals that develop with time might have been formed in mat- and basket-weaving activities. Basketry was already known during the Paleolithic and was, probably, a prior stage to weaving. Both techniques are based on regularity and perhaps led people, as Bernal supposes, “to distinguish patterns and to use them in art and later in geometrical figures and in mathematical analysis” (51). An attempt to analyze this hypothesis immediately confronts one with some difficulties.

The folding of a leaf already leads to a straight line (see Fig. 1). In a few minutes, one may produce a simple basket out of palm leaves and use it for carrying fish, as may be illustrated by the basket in Fig. 2, coming from the Mozambican province of Nampula. After having been used once or a few times, it is thrown away. The ephemeral character of the materials that were used makes it very difficult to reconstruct the history of mat- and basket-weaving. It is not accidental, therefore, that books on the

history of technology normally dedicate no space or only a few pages to the history of mat- and basket-weaving (see, e.g., Jonas et al. 1969 and Sworykin et al. 1964). Existing and surviving techniques may be analyzed for a better understanding of the development of interlacing. Ethnographic data may be helpful in attempts to reconstruct some fragments of the emergence of geometrical concepts in weaving.⁷

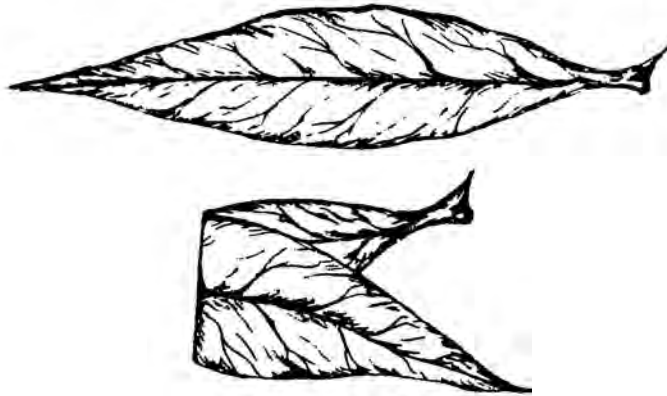


Fig. 1. The folding of a leaf

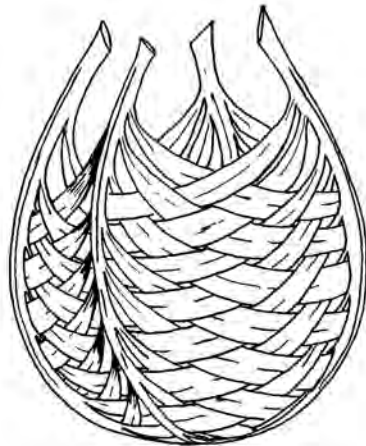


Fig. 2. Simple disposable basket made out of palm leaves

The concept of a right angle

Already during the Lower Paleolithic Period, the hominids had developed in their labor activities a first feeling for angle amplitudes—for example, *in what direction* does one have to hew to obtain sharper hand axes (Fig. 3)?⁸ To fabricate more effective harpoons (Fig. 4)? They discovered the optimal direction for throwing their assagais (Fig. 5).

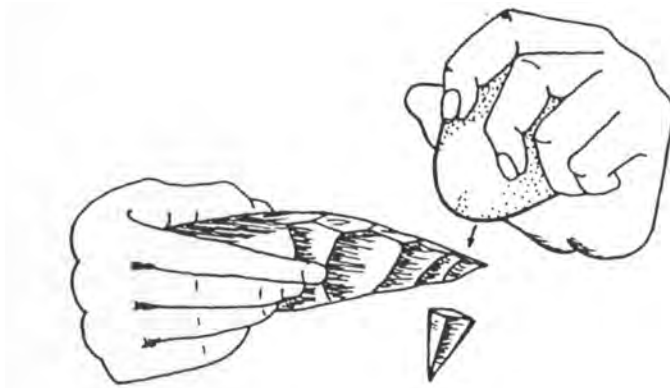


Fig. 3. Production of hand axes

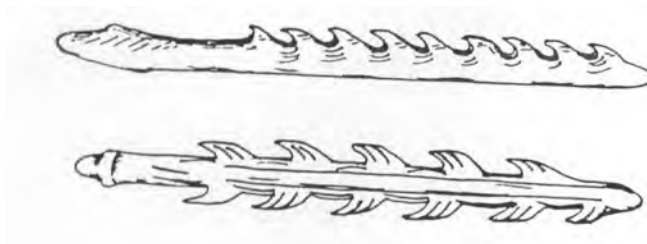


Fig. 4. Harpoon points

To avoid the overturn of their windscreens, the Australian aborigines were forced to put the upper sticks *perpendicularly* to the supporting sticks (Fig. 6). To avoid their dams being swept away by the water, the Waghenei of Congo, the Lamuts of the Camchatca peninsula, and the Camaiura Indians of Brazil saw

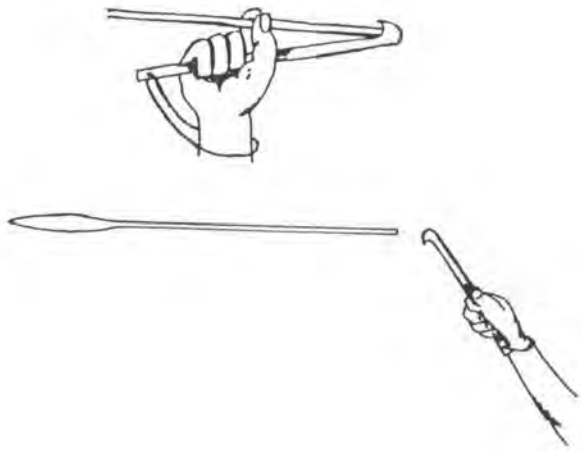


Fig. 5. Throwing of an assagai

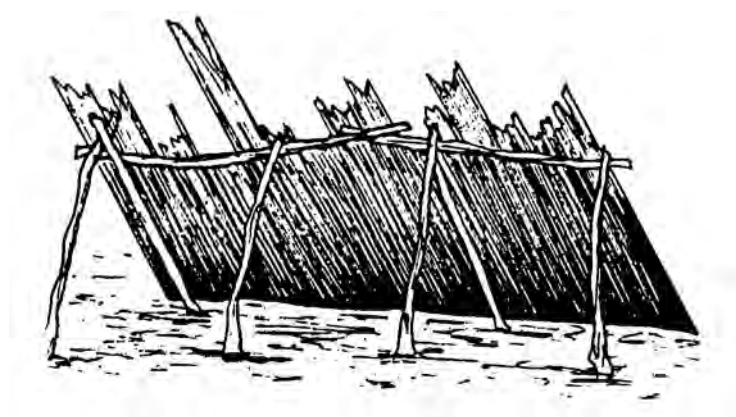


Fig. 6. Windscreen

themselves forced to fasten the barrier sticks perpendicularly to the supporting sticks.⁹ To make a fire as quickly as possible, the hardwood fire drill has to be rotated perpendicularly to the softwood (see the example of Australian aborigines in Fig. 7).¹⁰

Many hunting communities discovered that their arrows flew easier and more forcefully when they were released perpendicu-

larly to the bow (Fig. 8). Mozambican fishermen learned to fasten the floaters perpendicularly to their *mitumbui* and *cangaia* boats to maintain their equilibrium (Fig. 9).



Fig. 7. Fire drill from Australia

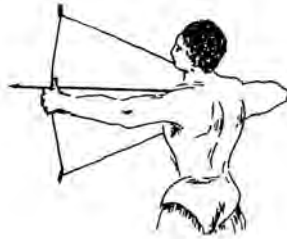


Fig. 8. Shooting an arrow

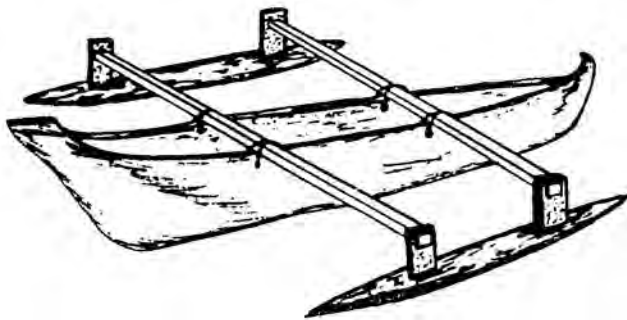


Fig. 9. *Cangaia* boat

These are only a few examples of situations where people—to satisfy best their needs—felt themselves forced through their labor and the characteristics of the material with which they were working to prefer mutually perpendicular directions.

The most widespread, and probably one of the oldest, activity encountered daily that required perpendicular orientations was the binding of objects. A problem that occurs frequently, for example, when weaving baskets and mats, constructing floats or boats, building shelters or houses, is how to bind fast two or more

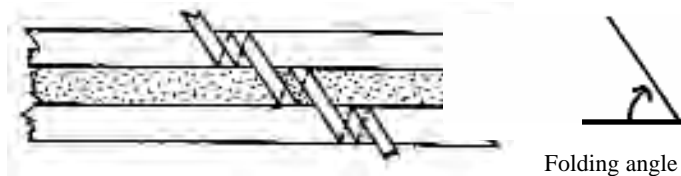


Fig. 10. Arbitrary folding angle

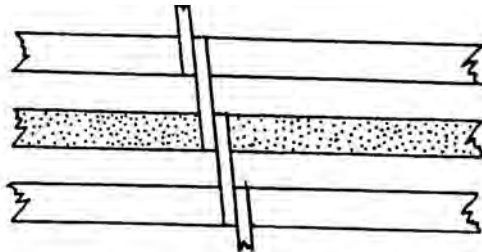


Fig. 11. Loosening of the bond

sticks, stems, or branches with the help of strands or thinner ropes. If one chooses an arbitrary folding angle, as in Fig. 10, then the sticks can easily loosen and become undone (Fig. 11). Through experience, one learns only one position is suitable for the fastening of two sticks (Fig. 12). To bind together three or more sticks with the same thread, the perpendicular position is better approximated when the thread is thinner (Fig. 13).

The same perpendicular position *necessarily* also emerges when one sews reeds together to make a mat. The easiest way to bore through a reed with a needle is in a perpendicular direction (Fig. 14), as this offers less resistance.

When one draws the thread tighter, it *automatically* assumes—independently of human will—a perpendicular position in relation to the reeds (Fig. 15). On the basis of this experience, the other threads are sewn in the same way (Fig. 16). Where should the last threads pass through the reeds? One discovers that a thread that does not pass through all reeds, as in the case of reed 1 in Fig. 16, is not desirable. Reeds that are (much) longer than the others, like reed 2, make rolling up the mat difficult.

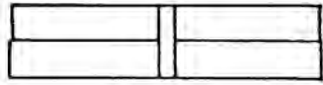


Fig. 12. Proper position

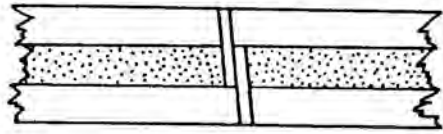


Fig. 13. Approximating a perpendicular position

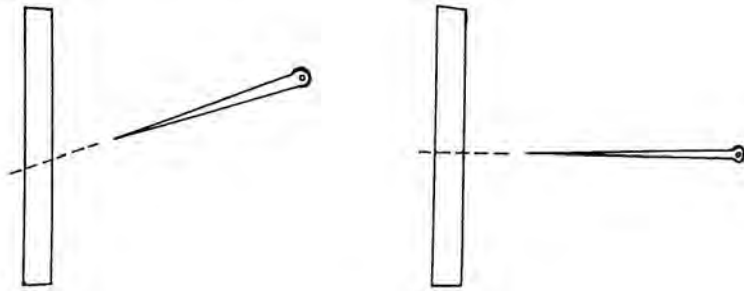


Fig. 14. Boring through a reed with a needle

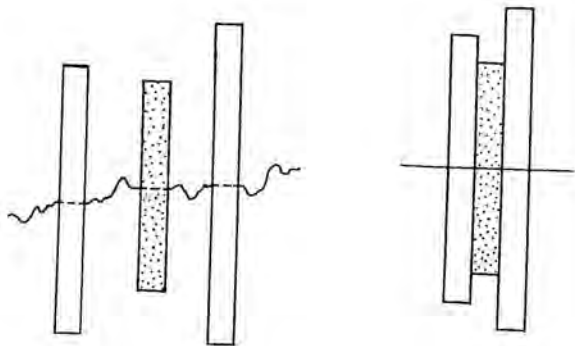


Fig. 15. Tightening the thread

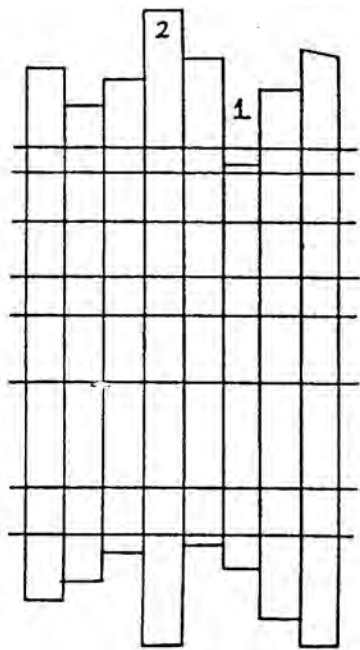


Fig. 16. One of the threads does not pass through all reeds

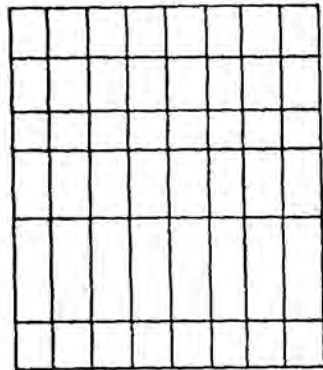


Fig. 17. Rectangular mat

This process not only leads to the formation of the concept of a right angle,¹¹ but gives rise also to a first *conceptualization of a rectangle*. The almost necessary rectangularity of the mat (Fig. 17) facilitates, in turn, the fabrication of other similar mats; as raw material, one needs reeds with the same length. At the time of the Paleolithic, there were already needles in use that, apart from having served for the processing of hides and, perhaps, the fabrication of collars, may have also been used for mat-making.

One may also arrive at the same rectangular form in other ways, such as in the case of Chinese mats or the hammocks of the Yanomama Indians in northern Brazil (Biocca 1980, 152), where two threads are simultaneously interlaced up and down in such a way that when one thread goes over the reed, the other passes under it (Fig. 18).

The concepts of right angle and rectangle were elaborated

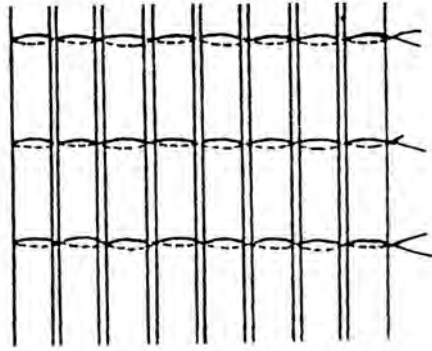


Fig. 18. Pairs of threads are simultaneously interlaced

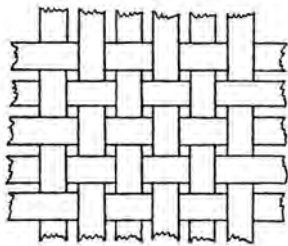


Fig. 19. Rectangular plaiting/weaving

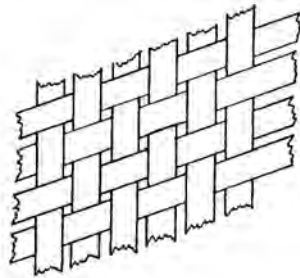


Fig. 20. Nonrectangular plaiting

through the practical activity of human beings. Once discovered and “anchored,” they could be applied to other situations where no immediate material necessity existed to favor these forms, as, for example, in the rectangular weaving of strands of (approximately) the same width (Fig. 19), where other amplitudes of angle are possible and indeed are sometimes chosen (Fig. 20).¹²

Where did the idea of a regular hexagon arise?

Did the idea of a regular hexagon arise from direct observation—for example, of the honeycombs of bees—or was it the product of pure thought?

Old cultural elements with a hexagonal form are found in geographical regions of the world situated far from each other.

For example, the Huarani (Ecuador), the Yekuana (Guyana), and the Ticuna and Omagua Indians in northwestern Brazil make big carrying baskets with hexagonal holes.¹³ The Pukóbye Indians in the northeast of Brazil interlace their headbands hexagonally, just as the Micmac-Algonkin Indians of eastern Canada do with their snowshoes.¹⁴ In the northern coastal zones of Mozambique, one weaves hexagonally the fish trap called *lema* and the carrying basket *litenga*. Cooking plates with hexagonal holes are plaited in Kenya, as are ladles used in boiling fruits among the Desana Indians of the northwest Amazon (see Somjee 1993, 96; Reichel-Dolmatoff 1985, 77). In Madagascar, fish traps and transport baskets are woven hexagonally, just as the Mbuti (Congo) plait their carrying baskets (see Faublée 1946, 28, 38; Meurant and Thompson 1995, 162). Hexagonally plaited baskets are also found among the Kha-ko in Laos (see photo in Grotanelli 1965, 8), as well as in China, India, Japan, Malaysia, and the Philippines.¹⁵ On the island of Borneo (Indonesia), one meets hexagonally woven railings; and among the Munda, in India, a bird trap is interlaced in the same way.¹⁶ Can we, perhaps, discover in the making of these woven objects *one* possible germ of the idea of a regular hexagon?

A practical problem that arises in the making of many kinds of baskets is how one can produce a border that is simultaneously strong, relatively smooth, and stable. Frequently, a nonsmooth border is bent (Fig. 21a), or a separate smooth and firm border is fastened to the basket, in order to solve the problem (Fig. 21b). Let us now see how hexagonal weaving solves the same problem.

Imagine the situation where both the border and walls of the basket are made out of the same material. To fasten the border well, one may try to wrap the other strands of plant around the border strand, as displayed in Figs. 22, 23, and 24 for the case of one strand.

It may be noted that this folding forces the artisans to *symmetrical* forms, whether or not they wish to do so. Initially, they are probably not conscious of the idea of symmetry, but the beginning of the concept of symmetry has begun to emerge. One or two folds only are little use. In the first case (Fig. 25), the

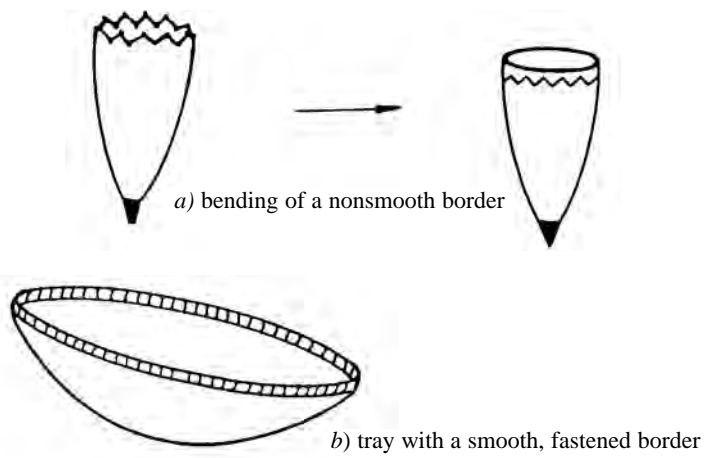


Fig. 21. Basket borders

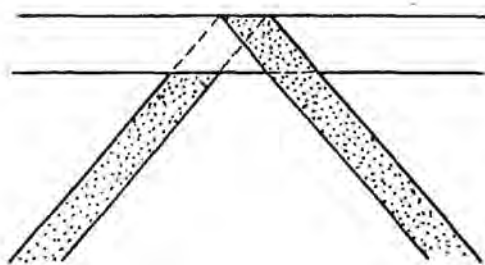


Fig. 22. One fold

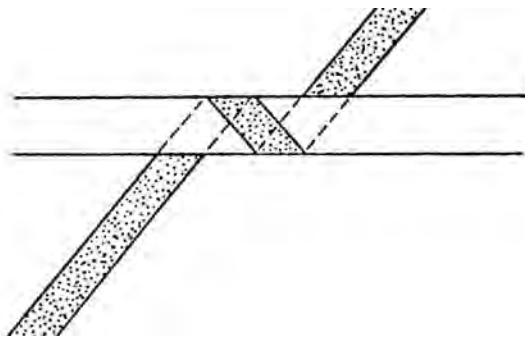


Fig. 23. Two folds

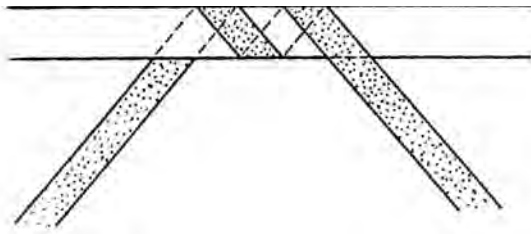


Fig. 24. Three folds

border strand is free to slide down. In the second case, the border loses its limiting function. At least three folds are necessary. What can our artisans then still freely choose (see Figs. 28a and 28b)? The angle of incidence is still variable. With a relatively small angle of incidence, the border can come quickly undone. Therefore, one needs the maximum possible angle of incidence, realized *materially* when, at the moment the second fold is made,

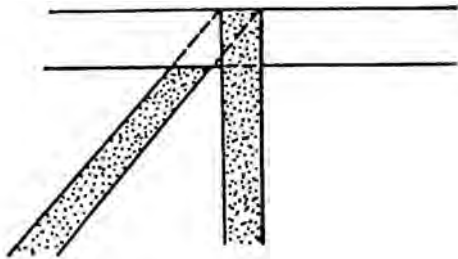


Fig. 25. A materially impossible fold

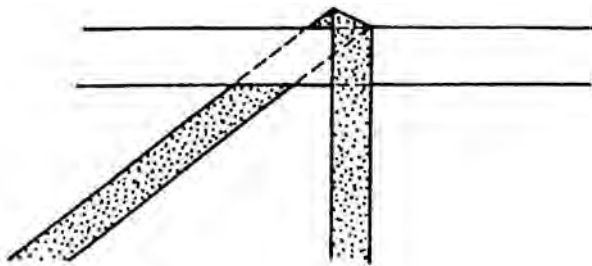


Fig. 26. A possible fold that, however, does not lie parallel to the border

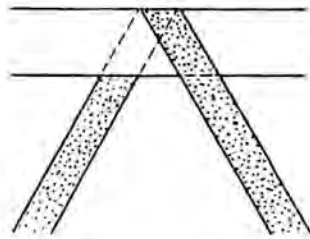


Fig. 27. A possible and necessarily symmetrical fold

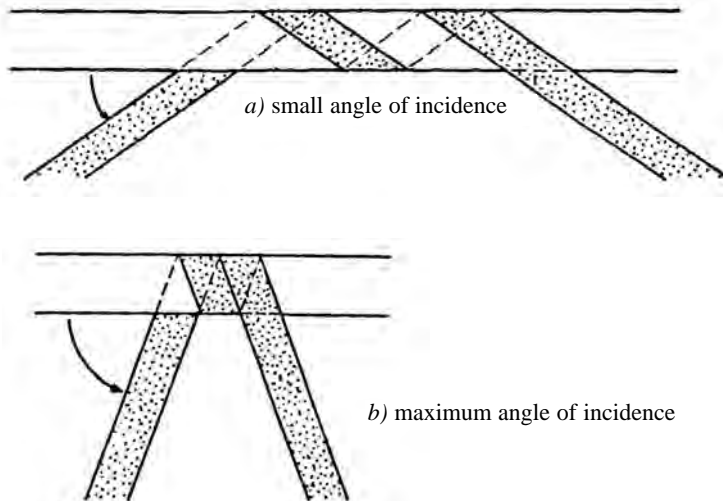


Fig. 28. Angles of incidence

one side of the strand touches the other. Figure 29 shows that this maximum angle of incidence measures 60° if the border and wall strands have the same width. If, afterward, other wall strands are fastened to the border, and one links them together, then one sees an image like the one in Fig. 30.

Interlacing further the horizontal strands, one obtains *automatically* a regular hexagonal pattern (Fig. 31), or, if one skips over one horizontal strand each time, a semiregular pattern appears like that found among the Caraim Indians (Fig. 32; see also Kästner 1978, 101). Both weaving patterns are very stable; the

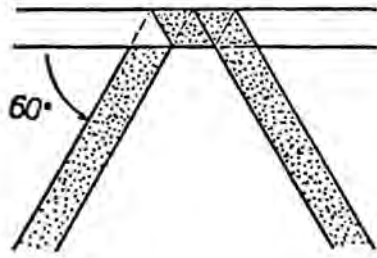
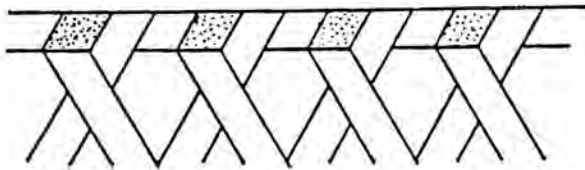
Fig. 29. Maximum angle of incidence of 60° 

Fig. 30. Several strands fastened to the border

resulting holes are almost impossible to enlarge or reduce.

After this pattern is found in the context of fastening a border, it proves possible to produce similar interlacing without a border (Fig. 33). This plane pattern can be used for the vertical wall of a basket—for example, as among the Kha-ko for a cylindrical wall. But if the hexagonal pattern is applied to the bottom of a basket, what form must this base display? An equilateral triangle, an isosceles trapezium, and a rhombus belong to the materially possible forms, as our artisans discover. Nevertheless, as they know on the basis of their experiences, a *convex* and *symmetrical, rounder* form is more appropriate for making a well-balanced, handy basket. The hexagonal weaving pattern forces them to choose the hexagonal form for the whole bottom of the basket.¹⁷ The similarity between the small hexagonal holes and the hexagonal base reinforces the growing idea of a regular hexagon without the basket weaver, as we may assume, being aware, at the first instance, of the *six* angles or of the *six* edges of the holes of his or her basket.

In a dialectical interplay between the choice of objective

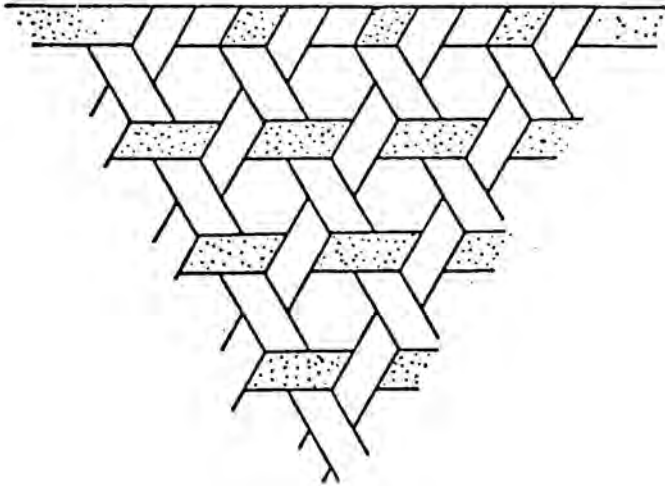


Fig. 31. A regular hexagonal pattern

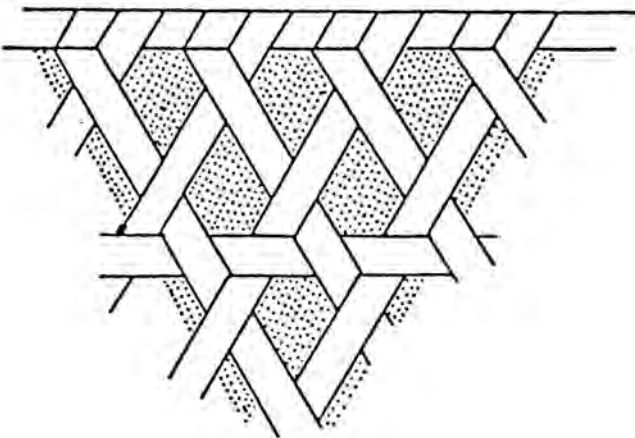


Fig. 32. A semiregular pentagonal pattern

experimentation, and the nature and form of the material used, a first hexagon concept could have been *elaborated* (labor!) in the way I described here. The feeling for *order* increases. Necessary for the production of a firm basket with holes is a repeatable, regular pattern. Through the repeated fabrication of each “cell” of

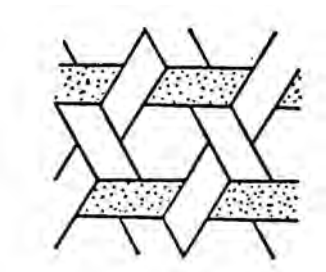


Fig. 33. Starting with a hexagonal hole

the basket, the capacity to compare is developed further. The artisan may observe, in particular, the congruence of the small hexagonal holes and the similarity with the hexagonal bottom. This enables the artisan to see the similarity with naturally occurring hexagons and so to *learn* to observe hexagonality in nature—for example, of the honeycombs of bees. In other words, I should like to stress that the capacity to observe and recognize order and regular spatial forms in nature has been shaped *through* labor activity. But not only the capacity to observe. Simultaneously emerges the *appreciation* of the hexagonal pattern for the production of firm baskets and sweet honey.

The practical, valuable properties of the hexagonal pattern and the discovery of similar forms in nature stimulate further interest in this form as such, and in its characteristic elements like, for example, the angle of 60° . It cannot, after all, be accidental (a present from God or a product of pure thinking) that the Ticuna Indians, for whom honey is a welcome extra (Neumann and Kästner 1983, 42)—we saw already that they make hexagonally woven carrying baskets—link hexagonally the two skins of their drums *without any material necessity* forcing them to choose that form (Fig. 34). The thinking that developed, enforced by active labor in order to produce something valuable, has here liberated itself from the “reign of necessity,” since in this case there is no necessity to opt for an angle of incidence of 60° . This is an example, early in cultural history, of the emergence of a *relatively* independent “mathematical” thinking. The *diagonals* and the

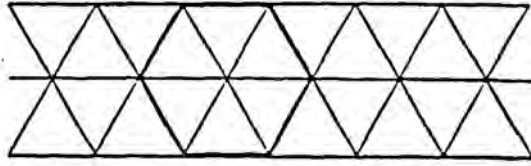


Fig. 34. Threads that link the top and bottom skins of a Ticuna drum

center of a regular hexagon have been discovered, along with the relationship between hexagons and equilateral triangles (see once again Fig. 34).

*Eduardo Mondlane University
Maputo, Mozambique*

NOTES

1. Would it be by chance that for the same Coolidge the choice of geometrical axioms is completely arbitrary? See Coolidge 1963, 423.

2. Cf. Simon: "Never and nowhere mathematics was invented. . . . Mathematical ideas are not at all restricted to Man. . . . When the spider produces its web, it uses its particularly built foot as a compass; the bees have solved a difficult maximum problem when they construct their hexagonal cells" (1973, xiii).

3. Cf. Ball: "Geometry is supposed to have had its origin in land surveying. . . . Some methods of land surveying must have been practiced from very early times, but the universal tradition of antiquity asserted that the origin of geometry was to be sought in Egypt" (1960, 5).

4. In what sense "subconscious"? "For want of a better name," Eves calls this knowledge of elementary geometrical concepts "subconscious geometry." He notes, "This subconscious geometry was employed by very early man in the making of decorative ornaments and patterns, and it is probably quite correct to say that early art did much to prepare the way for later geometric development. The evolution of subconscious geometry in little children is well known and easily observed" (166).

5 Cf. Cantor: "Also geometrical concepts . . . must have emerged early in history. Objects and figures limited by straight lines and curves must have attracted the eye of Man, as soon as he started not only to see, but to look around himself" (1922, 1:15). What, however, could have caused this changeover from "seeing" to "looking around himself"?

6. "Counting requires not only objects that can be counted, but also the

ability to exclude all properties of the objects considered except their number—and this ability is the product of a long historical development based on experience” (Engels 1987a, 36–37).

7. Also, D. Smith supposes in his *History of Mathematics* that such connections exist, but he does not advance an analysis of them: “. . . prehistoric stage of mathematical development is seen in the use of simple geometric forms as were suggested by the plaiting of rushes, the first step in textile art” (1958, 1:15; emphasis added). See also Lietzman 1940, 9.

8. See Leroi-Gourhan 1983, 83, on the importance of the choice of the hew direction.

9. See photos in Grottanelli 1963, 3:227, 231, 236–37.

10. See photo 1 in UNESCO 1983, 15. See also, for example, Weule 1970, 196 (East Africa). Softwood on exhibit in the Egyptian Museum (Cairo) shows that also in ancient Egypt the fire drill was rotated at a right angle to the softwood.

11. Hauser writes: “The right angle is already therefore one of the oldest geometrical concepts, as it emerges out of the vertical position of the human being when standing.” Would humans not have become aware of the perpendicular character of this vertical position in relation to the ground after they have already elaborated through their activities an image of “perpendicular to one another” (1955, 11)?

12. For example, to weave a Hawaiian straight-edged headband, the strands are woven at an angle of 60° (see Bird et al. 1982, 59–69).

13. See, e.g., Guss 1989, 73; Roth 1970, 320–43; Neumann and Kästner 1983, 8, 43, 93; Mason 1904, 488, plate 240, for other examples from Brazilian Indians.

14. See photo in Grottanelli 1965, 45 (cf. also Mason 1904, 275). Baskets plaited in open hexagonal weave also appear among North American Indians—for example, among the Delaware and among the Mashpee in the Northeast (see photos in Turnbaugh and Turnbaugh 1986, 17, 19).

15. See, e.g., Ranjan et al. 1986, Dunsmore 1983, and Lane 1986.

16. See photos in Bodrogi 1978, 17, and Icke-Schwalbe 1983, 82. Other examples may be found, for example, in Roth 1970, 1:362; and Faublée 1946, 19, 28, 38.

17. See the description of the making of hexagonal baskets in Guyana in Roth 1970.

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The Power of Naming in the Postunification Attack on the German Left

Patricia Pollock Brodsky

Western culture possesses a number of sayings having to do with the past and its relation to power. It is a commonplace, for example, that history is often rewritten by the victors in a conflict, and it is clear why this should be so. The opposition's inconvenient insistence on their rights can be erased, one's own contradictions and compromising alliances undone, and the present made to seem the just and logical outcome of past actions and visions, a seamless movement toward precisely this victory. There is also a saying that those who control the past control the future. The term *Vergangenheitsbewältigung*, with its sense of *overcoming* the past, illustrates the German attitude toward this concept. And indeed, the problem of coming to terms with Germany's recent national past has stood at the center of what might be called a national debate about whether to have a debate, so problematic and divisive has this issue of interpreting the past proven to be. Finally, there is *Siegerjustiz*—a term the Germans use to describe a victor's arbitrary power to judge, punish, or pardon, a power held by right of victory. The term was sometimes used, fairly or not, for Allied actions after World War II (for example, the Nürnberg trials or the Denazification program). It has also been used to describe the treatment of the citizens of the former German Democratic Republic, who in 1990 suddenly found themselves part of an alien "Germany" that was sitting in judgment on their past.

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One way history is rewritten, a claim laid to the future, and a vindictive victor's justice imposed is through the power of naming. Historical events and persons are present in everyday life in the form of streets, schools, public institutions of all kinds. Awareness of our identity as a member of a community is reinforced daily, often subconsciously, in the fabric of names that surrounds us, creating a sense of continuity. The universally understood symbolic value of names has led to the practice of renaming the places and entities of a conquered territory. The manipulation of language as a means of destroying a sense of identity and solidarity is a very old one, with a long history in Germany.

An example is the treatment of the German-Polish border regions over more than two hundred years. When the Prussians conquered Silesia in 1763, a process of Germanization began almost immediately. The use of the German language was mandated in all legal transactions, including marriage and negotiation for employment. After 1871, as part of Bismarck's anti-Slavic *Kulturkampf*, religious services in the region also had to be conducted in German, and numerous town and street names were forcibly Germanized. The Nazis picked up where Bismarck and his successors had left off, manipulating reality for ideological purposes. In 1933 the *Bund deutscher Osten* (BDO) was formed to help in the purifying of the German East. Their main target was geographical terms, family names, and even inscriptions on monuments and wayside shrines. Between 1937 and 1939 the BDO secretly defaced hundreds of signs. The vandalism was put down to "perpetrators unknown," and went unpunished, and the signs were then replaced with new ones—in German (Achmatowicz 1978, 246). The purpose of all this was to create the impression of a land that was German to its roots.

In the forty years between the formation of both the Federal Republic of Germany and the German Democratic Republic (GDR) in 1949 and the absorption of the latter after the fall of the Wall, the two Germanies grew apart in crucial ways. One fundamental difference was the attitude toward the German Resistance against the Third Reich. Despite the enormous difficulty of fighting National Socialism from within, there was a broad and

varied native movement to resist, undermine, and, if possible, destroy it. Participants ranged from conservative insiders like the members of the Kreisau Circle or the group that attempted to assassinate Hitler in July 1944, to religious figures like Bishop Galen, whose resistance was limited to single issues, to the grass-roots working-class resistance in the factories and on the streets, often spearheaded by the parties of the Left (Brodsky 1997).

In examining postwar reactions to the Resistance, we find that its participants, supporters, and those in exile saw it as a pledge to the outside world, amidst the seemingly universal hegemony of National Socialism, that there was “another Germany.” Others, far from regarding it as a sign of hope and a source of pride, displayed a profound ambivalence, not to say hostility, toward the very idea of resisting. The concept of obedience to authority was deeply rooted in German experience, reinforced by the traditions of patriarchy, Lutheranism, and the Prussian state. There were debates about the “right to resist,” and widespread disapproval of what some saw as disloyalty, disobedience, and betrayal. When Marlene Dietrich, who had encouraged U.S. soldiers to fight fascism during the war, returned to Berlin, she was greeted by many as a traitor (Zotl 1997, 28). When, immediately after the war, it became necessary to take a public stand on the German Resistance—as, for example, in school curricula—the emphasis was almost entirely on conservative or religious-based actions such as 20 July or the leaflets of the White Rose, a group of upper-class Catholic students. Courageous actions undertaken by Socialists or Communists, such as organizing camp inmates, industrial sabotage, or a broad and effective underground propaganda effort, had no place in the vision of Germany that was being crafted in Bonn in the late 1940s.

These attitudes grew out of a widespread and complicated desire to suppress the recent past. Despite the prominence of the Denazification process mandated by the Allies, the reality was that the Western zones saw a concerted effort to return to a status quo based on the retention or reestablishment of many former Nazis in positions of power in education, medicine, the military, the judicial system, and the legislative bodies themselves (Frei

1996). Progressive voices, such as those of members of the underground or former political prisoners, were soon silenced—with the encouragement of the Western Allies, for the hot war against the Nazis had shifted to a cold war against the Soviets. In this, the occupiers found willing allies among their recent enemies, who had just emerged from twelve years of state-fostered anti-Communism. It is no wonder that a goal of the reconstituted German ruling elite was to discredit the leftist Resistance.

In the German state that was formed of the territory occupied by the Soviets four years after the war ended, attitudes toward the Nazi era were understandably different. Many German progressives had returned from exile to the Soviet zone, particularly to proletarian East Berlin, which had been a center of the antifascist underground. Under the urging of the Soviets, a view of the future grew there that diverged drastically from that developing in the West. Antifascism became an official component of the new state's self-definition. The Resistance, particularly the working-class Resistance, was given great prominence. The progressive heritage was kept alive through frequent references. Reminders of Resistance fighters were ubiquitous in the names of streets, squares, youth clubs, hospitals. In addition, a multitude of memorials and museums to antifascism were erected throughout the country, often on the site of former concentration camps. For both the citizens of the GDR and those looking on from the West, the Resistance tradition and the new socialist state became inextricably and symbolically linked.

With the fall of the Wall in 1989 and the hasty election in early 1990, all this was to change, although most East Germans were not aware of the fact, and would not have approved. As anthropologist John Borneman points out, "The Autumn Revolution of 1989 . . . started with the hope of establishing popular control over the government, of restoring meaning to being *East German* [emphasis added]. It ended with West Germany's virtual corporate takeover of her sister state" (Borneman 1990, vii).

The agenda of the newly pan-German government was set by

Chancellor Kohl's Christian Democratic Union (CDU), long the motor behind Germany's Cold War policies. It soon became evident that the new German state was not to be a union of equals, as the laws, economic policies, and ethical and social assumptions of the old GDR were roughly shoved aside. High on the list of things to be erased was pride in the socialist vision and in the Resistance tradition; and one area in which this message was most quickly conveyed was in the massive renaming of city streets. The CDU led the charge, with changes in place as early as 1991. By 1997, eighty-six streets had been renamed, eight of them in West Berlin, seventy-eight in East Berlin, many against the will of the citizens. Not that people were against any change, but as the Party of Democratic Socialism (PDS) repeatedly pointed out, changes should not have taken place until a holistic and historically based conception for decision-making had been arrived at, and not without the democratic participation of the people most concerned—those who lived in the affected neighborhoods (Zotl 1997, 6). In reality, however, decisions were made by governing bodies such as the Berlin *Abgeordnetenhaus* (Berlin Senate) or *Bezirksverordnetenversammlungen* (district councils)—sometimes in spite of tens of thousands of citizens who wrote petitions or took to the streets in protest.

The antidemocratic manner and the unseemly haste with which the changes were made are directly related to the triumphalist motivation for the whole process. By far the majority of name changes in East Berlin were motivated by political revenge. Already in October 1991, the Berlin Senate proposed renaming thirty-seven streets that without exception bore the names either of early Communists, members of the German Resistance, or heroes of the Spanish Civil War (Zotl 1997, 6). Another long list of changes, carried out between 1990 and 1993, saw the removal from the streets of Berlin of such disparate figures as François-Noël Babeuf, a leading figure in the French Revolution; Jacques Duclos, a leader of the French Resistance during the Nazi occupation; Johannes R. Becher and Willi Bredel, widely respected East German poet and novelist, respectively, both cofounders of the antifascist wartime exile

organization *Komitee Freies Deutschland*; and, more obviously perhaps, Marx, Engels, and Lenin. The Straße der Befreiung had been named in 1975 to commemorate the liberation of the German people from fascism by the Allies. When its name change was voted on in 1992 in the Lichtenberg District council, a CDU deputy asked, “*Von wat sind wir denn befreit worden?*” [What were we liberated from?] (Zotl 1997, 19). Both Babeuf and Duclos remain unacknowledged in Berlin, despite protests from French diplomats. Duclosstraße was replaced by Möllendorfstraße, after a general who commanded Prussian troops against the French in 1794 and 1806 and led the charge in the second partition of Poland.

Not all the new names were objectionable in themselves. In some cases, one antifascist figure was simply replaced by another. But even here, right-wing “political correctness” lay behind the absurd and demeaning shuffling of “worthy” and “unworthy” antifascists. Thus the Communist Jenny Matern is replaced by the Socialist Johanna Tesch (the Social Democratic Party of Germany [SPD] shared in the governing of Berlin in the 1990s; the Communist Party of Germany [KPD] clearly did not). The Communist youth leader Fritz Große gives way to the artist Ernst Barlach, whose art was declared “degenerate” by the Nazis, but who was neither an active member of the Resistance, nor a Communist. One way or another, leading German antifascists such as Hans Beimler, Ernst Thälmann, and Klara Zetkin have been “disappeared.”

A heated debate arose in the Berlin Senate over the case of Käthe Niederkirchner, a heroic young woman who fled to the USSR, was parachuted behind Nazi lines, then arrested and murdered by the SS. This debate made it clear that the targets in the mass erasure were not just long-dead Communists, but the very idea of the Left itself, and that what was at stake was power. In 1993 the deputies moved to new offices on Niederkirchnerstraße. A PDS deputy declared it only fitting that the “foremost address of the city should bear the name of a victim of the National Socialists” (Renate Künast in Zotl 1997, 24). The Senate president retorted that had Niederkirchner lived, she would have

been a Stalinist, and it was inappropriate for “our parliament to be built on the basis of those who supported a Communist system” (Hanna-Renate Laurien in Zotl 1997, 24). The Senate (with CDU and Free Democratic Party [FDP] voting against) voted to keep the street name, but the president used her veto power to change the address singlehandedly to *Abgeordnetenhaus Berlin Mitte* (Senate Building, Berlin Centrum) From that point on the administration used this “official” name; the CDU put “Prussian Parliament” in its letterhead, and the PDS, SPD, Bündnis 90, and Greens all continued to use “Niederkirchnerstraße” in theirs (Zotl 1997, 25). A clearer example of the contemporary political resonance of the renaming would be hard to find.

A similar pattern prevailed in other Eastern cities. There, too, as in Berlin, the particular choice of a new name often seemed calculated to add a special sting to the unpopular renaming, either by means of cynical contrast, or because the new name seemed to trivialize the old (Zorn 1997, 205ff). Dresden’s Karl-Marx-Platz became Palaisplatz (Palace Square), Friedrich-Engels-Straße is now Koenigstraße (King Street), and three victims of the Nazis made way for Fürstenallee (Princes Avenue), Bismarckstraße, and Zirkusstraße (Circus Street). Foreign names connected with the early days of Communism, with the Resistance, or with progressive world culture, such as Dimitroff, Togliatti, Salvador Allende, Majakovsky, and Gorky, also disappeared from the scene.

Another aspect of the battle of the names is the foot-dragging on the part of the CDU and other conservatives when it comes to changing names in the West. When streets in West Berlin were discovered to bear names given them during the Third Reich, including those of an SS general (Karl Hoferstraße in Reinickendorf) and an anti-Semitic pastor and proponent of euthanasia (Seebergstraße in Grünewald), the CDU raised endless objections to changing them. And when proposals were made to name a street in West Berlin after the prominent Jewish cultural historian Walter Benjamin, the conservative district council withdrew it, “in consideration of the protests of the residents” (Zotl 1997, 38). In 1993 in Füssen, Bavaria, the Bundeswehr

attempted to keep the name Eduard Dietl Kaserne for its local garrison, despite the fact that Dietl had been Hitler's favorite general and a founding member of the Nazi party. A Bundeswehr general remarked that Dietl had no doubt been a Nazi, but he had "charisma" and "was a good example of soldierly virtues" (*Reunited Germany* 1994, 10). Two years later it was reported that further efforts to get the name of the Caserne changed had been successful (Durand 1996, 16).

Nor has the pressure let up. The Karl-Liebknecht-School, named after one of the founders of the German Communist Party, who was murdered by the right wing, became the Maria-Montessori-School (Wolff n.d). A CDU politician recently suggested the creation of a Disneyland-type park at the outskirts of Berlin that would display dismantled statues of the heroes of the GDR (Babias 1997). In June 2000, the CDU and an increasingly centrist SPD proposed renaming three streets in the Treptow district of Berlin that bore the names of men murdered in Nazi prisons (Stachel). And in the same month the name of Peter Edel, a Jewish Communist writer and Resistance fighter who survived three concentration camps, was erased from a cultural center in an eastern district because he had supposedly had "contacts with the State Security Apparatus (the Stasi)." This case aroused the anger of many Berliners; some took to the streets with banners saying "Peter Edel suffered for us" (*Junge Welt*, 15 September 2000). The change was carried out, despite the fact that one of Edel's supposed victims, the writer Stefan Heym, opposed it.

A similar pattern can be seen in the post-1989 attack on antifascist museums and memorials in the former GDR, ranging from shutting them down to refunctionalizing them as anti-Communist monuments! Whole museum staffs have been dismissed, and numerous statues have been vandalized or officially removed from their pedestals (see Zorn 1997 for details). One ploy has been to declare the museums economic liabilities. The former concentration camp at Lichtenburg, the only fully preserved camp and one of many used during GDR times as a site for history education for youth, is for sale; the federal government claims it does not have the money to keep it open

(Itzerott 2001). A campaign led by an association of former camp inmates, *Lagerarbeitsgemeinschaft Buchenwald-Dora*, has been mounted to prevent the sale. They point out the importance of Lichtenburg as the precursor of Buchenwald and Ravensbruck and the place where the secret political and military organizing that was later to liberate Buchenwald from within was begun (G. Dieckmann 2001).

In many cases, photos, realia, and commentary providing vivid documentation of the rise and exercise of fascism have been removed or “edited” beyond recognition. Inconvenient historical facts, such as the complicity of German industry with Hitler and its role in the vast slave labor market of the camps, were deleted from exhibits. The women’s camp at Ravensbruck, for example, included a special subcamp that supplied slave labor for the contiguous Siemens plant; the entire GDR-era exhibit on the role of German capital at Ravensbruck was shut down. The exhibit at Mittelbau-Dora, site of the horrific underground factory where inmates were forced to build V-2 rockets, no longer includes a discussion of the companies involved, nor of the post-war fate of the scientists in charge, such as Wernher von Braun (Zorn 1994, 97–98).

The most egregious attacks on the antifascist memorials have tended to focus on smaller, less well-known camps, where there is less public outcry. However, in one case a propaganda coup was avoided solely through the power of public outrage. Buchenwald was the first major camp to be liberated while still full of prisoners. It was also the only camp whose inmates, organized by an international committee of resistance, actually freed themselves before the U.S. troops got there. Thus it quickly became a symbol of the horrors that unfolded as the Allies learned about the camp system (Hackett 1995). Immediately after the war, it was used by the Soviets as an internment camp for captured Nazis, as part of the Denazification process mandated by the Allies and carried out in all four zones of occupation (Schneider 1996, 5). Later it was turned into an educational museum that sent a powerful message to the world.

In the mid-1990s a proposal surfaced, led by former internees

of the Denazification camp, to build a separate memorial on the grounds of Buchenwald focussing on the mass grave of the “victims” of the Soviets—over 80% of whom were known to have been civilian officials of the Nazi party (Schneider 2001). In addition, a bridge was planned from the antifascist camp to the postwar internment camp, symbolically linking the two, inviting sympathy equally for the victims of the Nazis and the Nazis themselves, and tacitly supporting the “totalitarianism” theory that equates Nazism and Communism. In the face of this triumphalist attempt to coopt an internationally known symbol of antifascism, a massive protest erupted, spearheaded by a group of former prisoners and supported by people all over the world who saw the bridge and the planned memorial to *Speziallager Buchenwald II* as an insult to the victims and survivors of the Nazis. Some feared the “iconization of the perpetrators” (Schneider 2001). Pierre Durand, president of the International Buchenwald Dora Committee, in an open letter to the planning committee, emphasized the connection between this rewriting of history and the contemporary agenda. “We are faced once again with a political project that stands in direct relationship with the situation in Germany since reunification.” A monument was built at the graveyard, but thanks to the international outcry, the building of the bridge was prevented. Visitors to the postwar camp site must use a separate entrance, and a wall separates the two (Schneider 1996).

Buchenwald has remained a nexus of friction, as both sides insist on its symbolic value. In 1997 a group of activists from Aachen covered the stainless steel monuments at the postwar grave site with trash bags, and passed out leaflets protesting the relativization or even the celebration of fascism. The activists were accused, and convicted, of desecrating a graveyard. But after moving through the judicial system for over three years, to the accompaniment of attacks from the right-wing press, especially the *Frankfurter Allgemeine Zeitung*, they were finally acquitted by the highest court in the state of Thüringen. This part of the victory, too, was made possible by moral and financial support from an outraged public. But a similar martialing of

forces in defense of the past has not been possible for numerous lesser-known camps and monuments, or for dozens of streets and squares all over the former GDR whose symbolic and informative force has been eliminated.

Renaming streets and deconstructing or reconstructing memorials stood very high on the list of tasks taken on by the new government right after unification. Historians' commissions were formed to create a "new orientation" in memorials to the victims of Nazism (Zorn 1994, 10). In the legislative period 1991–95, in the Berlin Senate alone, the renaming question formed the focus of one question-and-answer period, seventeen proposals, nineteen Senate debates, two committees, and twenty-six inquiries (Zotl 1997, 9). It is worth asking, given the enormous number and gravity of issues presumably requiring attention, why state and local governments chose to devote so much time and resources to the matter of place names and museums in the former GDR. A standard explanation from the commissions was that the antifascism of the GDR had been "imposed by the state," was "authoritarian" and "ritualized," and therefore was not a real expression of the people (Zorn 1994, 11)—a claim that is true in only a limited sense, and that leaves out some crucial facts. Just because antifascism was official state policy does not invalidate it, nor mean that it was not supported by the people. As recently as March 2001, this claim was still being made and still required refutation. In an article in the Hamburg newspaper *Die Zeit*, regular correspondent and former GDR citizen Christoph Dieckmann declared, "That their [East Germans'] antifascism was supposedly exclusively ordered by the state is a sham, and a strategy of self-exculpation on the part of the old Federal Republic" (2001).

The museums and World War II sites in the GDR served the dual purpose of memorializing the heroes of the Left and the Resistance, and of informing visitors about the historical, economic, social, and political sources of Nazi power. Their purpose was both to pay homage and provide ethical education. This is precisely what concerned the reactionary forces within the postunification ruling class. Official antifascism not only had

interpreted history in its presentations, but had, according to one of the study commissions, “claimed the right to draw unavoidable conclusions from it for the present and the future” (Zorn 1994, 11). And clearly this must cease.

Perhaps the new agenda can best be illustrated through some quotes from the historians’ commission formed to study the situation at Buchenwald. “The camp museum is not a place for instruction . . . of the visitors,” it declared. The name of the institution, *Nationale Mahn- und Gedenkstätte* (National Place of Commemoration and Memorial) was changed to read simply “Memorial.” In its reconceptualization of the museum on the site of one of the most notorious Nazi camps, the commission declared, “The visitor must have the opportunity to decipher the various dimensions of the *univers concentrationnaire* himself. Through the use of various modes of perception, a multiplicity of approaches to the topic should be opened up.” There should be a “multidimensionality of events and a plurality of interpretations” (Zorn 1994, 12). This outrageous linguistic smoke screen represents a favorite tactic in the “history wars.” It is postmodernist revisionism and relativism in the service of a reactionary political agenda, aiding in the rewriting of history!

In warning of the danger inherent in the renamings, one commentator points out that it sends a signal to young people that “left and antifascist points of view are no longer being defended by the new state” (Ahbe 2000, 2). But the danger goes far beyond an official withdrawal into passivity. The “new state” is actively destroying the antifascist past, and by doing so, is opening the floodgates to neofascist violence, encouraging the “brown” forces to come forth. However much official antifascism might have become an automatic public gesture in the later years of the GDR, the names, and the values and stories behind them, were part of the environment for fifty years. Respect for the Resistance fighters was a given, and it was both genuine and widely supported. Neofascist acts, whether of vandalism or violence, were severely punished. Since 1990 the Left has once again become fair game, both for vengeful politicians and rabid street thugs.

The Czech journalist, resister, and editor of *Rude Pravo*

Julius Fucik, executed by the Nazis in Berlin-Plötzensee in 1943, wrote before his execution, “You who outlive this time, do not forget. . . . they were not nameless heroes, . . . they were people who had names, faces, longings, hopes, and . . . the suffering of the very least of them was not less than the suffering of the first whose name has been preserved” (Fucik 2000, 71). Fucik’s message underscores the breadth of the Resistance, the humanity and dignity of every individual victim and resister, and the importance of their actions. They are a vital part of history, and must not be written out of it by the victors, just because their struggle represents an inconvenient truth.

Nota bene: Fucikplatz in Dresden has been renamed Straßburger Platz. Fucik’s memoirs, smuggled out of Prague’s Pankrác Prison and published as *Report from the Gallows*, have been attacked in the Czech Republic as a fake (Zorn 1994, 207). But the truth may prove stronger yet, for the memoirs were republished in Czech in 1995 and in English in 2000. Maybe someday his name and that of the other fighters against fascism will again serve as reminders and inspirations in the streets of Germany and the world.

Department of Foreign Languages and Literatures
University of Missouri–Kansas City

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The Call to Concrete Thinking:

Charles Reitz

Ernest Manheim was born in Hungary in 1900 and served in the Austro-Hungarian army as a lieutenant in World War I. After the conclusion of combat in Italy, he volunteered with the Red Army of Béla Kún and was taken prisoner defending the Hungarian Soviet Republic. War and upheaval evoked his great interest in sociological matters, and in 1923 he undertook graduate work with German sociologists Ferdinand Tönnies and Hans Freyer at Kiel and Leipzig. His doctoral dissertation, the central subject of this essay, took a philosophical look at the trajectory of logic and concrete thinking in Hegel and Marx, and was published in Germany in 1930. Because of his Jewish heritage, Manheim had to flee the rise of fascism before the conferral of his postdoctoral academic teaching credential, the *Habilitation*, which he had earned through the publication of his second book on communication theory at Leipzig. After emigrating to London, he completed yet another doctorate in anthropology and social theory under Bronislaw Malinowski. In 1937 he took a position at the University of Chicago, and in 1938 he was recruited by the University of Missouri at Kansas City. He founded the sociology department there, and continued to teach, even after retiring as chair, until 1991. Ernest Manheim celebrated his 102nd birthday in January 2002. In June we presented him with the manuscript of a book we are editing about his life and work

(Baron, Smith, and Reitz, forthcoming), just before his death that July.

Manheim's early work in philosophy and social theory was one of the first and most important intellectual responses to Georg Lukács's challenge to develop a concrete paradigm for social research and action. The evidence presented below will, I believe, demonstrate that Manheim's thought advanced well beyond that of his contemporaries, Martin Heidegger and Herbert Marcuse, who also sought to interpret and to criticize Lukács, Hegel, and Marx on themes concerning the nature of dialectics and the theory of the social sciences. Manheim's early work also has significant implications for critical educational theory and practice.

Lukács, Heidegger, and Marcuse

In 1923 Georg Lukács combined elements of the classical German idealist philosophy of history with Marx's philosophy of class consciousness, and (re)formulated the problem of *the concrete* for Marxism and philosophy. He explicitly called for the further development of the "logic of the concrete concept" (*die Logik des konkreten Begriffs*).

Hegel, in his *Phenomenology* and *Logic*, was the first to set about the task of consciously recasting all problems of logic by grounding them in the qualitative material nature of their content, in matter in the logical and philosophical sense of the word. This resulted in the establishment of a completely new *logic of the concrete concept*, the logic of totality—admittedly in a very problematic form which was not seriously continued after him. . . .

Classical philosophy . . . succeeded in identifying the substance, now appearing for the first time, in which philosophically the underlying order and the connections between things were to be found, namely history. . . . Here and here alone is the concrete basis for genesis. (1971, 142–43)

In Lukács's view, dialectics had to insist on the concrete unity of the historical whole. Without this, "fetishized" relation-

ships between parts were thought to prevent consciousness from ever finding meaning. *Totality* was seen as the revolutionary philosophical category that governed historical reality, while *reification* (*Verdinglichung*) was seen as representing a rigid and reductionist fragmentation of consciousness that afflicted both the bourgeois and the proletarian. The problems of the abstract, “reified mind,” and of the reification of consciousness, as well as the concepts of *totality* and *reification* were thought to be more germane to this new Western Marxist analysis than the role of economic factors in historical explanation.

Lukács’s 1967 preface to the re-issue of *History and Class Consciousness* would self-critically reject his earlier reduction of the dialectical and materialist philosophy to the sheer negation of reification. It is nonetheless important to acknowledge that his 1923 call *did* lead philosophy in the twentieth century to search for important new ways of thinking about our concrete human condition (as really existing societal beings with a historically rooted potential for the future). Martin Heidegger, Herbert Marcuse, and Ernest Manheim were the first philosophical and social theorists to meet Lukács’s challenge to develop a more concrete paradigm for thought.

Heidegger’s 1927 *Sein und Zeit* catapulted twentieth-century continental philosophy in the direction of a new theory of human existence, a fundamental ontology. Heidegger proposed that authentic human existence must understand itself concretely—not in terms of our reified everyday factual existence, present at hand, but rather in terms of care (*Sorge*) and being-towards-death as the ontological structural unity of human existence.¹ In search of existential concreteness, Heidegger explicitly built upon Lukács’s concepts of reification and totality, but he shied away from Lukács’s retrieval of Hegel’s concept of a dialectic in history. Instead he replaced dialectics with the concepts *care* and *historicity* (*Geschichtlichkeit*), which he utilized to form a priori ontological, structural, and existential features in the human being: “Care, as the fundamental structural totality, is prepositioned existentially a priori to any factual behavior or situation in being human” (1927, 193). Heidegger thus distanced himself from Lukács and from Hegel, and chose instead in *Sein und Zeit*

to search for “concrete” understanding by connecting his ontology in this manner to abstract neo-Kantian a prioris.

Herbert Marcuse sided with Lukács in a 1930 essay on the need for dialectic in social science. Yet, two years later in writing his first book-length work on Hegel, he never mentioned the dialectic, but rather rechristened Hegel’s philosophy as: *Hegels Ontologie und die Theorie der Geschichtlichkeit* (Hegel’s Ontology and the Theory of Historicity) (1968). Marcuse in 1932 clearly preferred to philosophize about Hegel’s concept of history following Heidegger in terms of *Geschichtlichkeit*, and traces Heidegger’s use of *Geschichtlichkeit* back to Dilthey’s *Lebensphilosophie*, which he believed was rooted in Hegel himself. Hegel’s early theological writings, the Jena *Logic* and the *Phenomenology*, were construed by Marcuse as developing the existential concept of *life* as the primordial foundation of Hegel’s ontology (1968, 227). In the Jena *Logic*, Marcuse asserts, *life* becomes the metasystem absorbing all particular subsystems within nature, and determining the very being of nature as such (248). In his later work, *Reason and Revolution: Hegel and the Rise of Social Theory* (1941), Marcuse does attempt to recapture a sense of the dialectic for social philosophy. Yet by the time of his *Eros and Civilization* (1955), Marcuse’s philosophy of life instincts and death instincts (Eros and Thanatos) nearly entirely displaces discussion of the dialectic of the social relations of production with a dualistic philosophy of human nature rooted in Dilthey and Nietzsche’s Lebensphilosophical conflicts of life affirmation and life denial recast in terms of the Freudian depth psychology.² For Marcuse, the dialectic increasingly finds its home in a transcendent “aesthetic dimension” (1978) rather than in *social* life, which is rejected as a single-dimensional domain.

Despite my criticisms of Marcuse, or perhaps even *because* of them, I wish to point out that in his 1932 Hegel study, Marcuse reviewed contemporary Hegel scholarship, and wrote that one other new Hegel book was especially worthy of attention because it attempted “to include the concrete activity of the comprehending human being within the concept of the ‘concept,’ and to unfold the categories of the *Logic* as modes of comprehending

activity” (4). This book was Ernest Manheim’s *Zur Logik des konkreten Begriffs*. Though Marcuse’s own work diverged substantially from Manheim’s analysis of Hegel, Marcuse indicated that Manheim’s book deserved to be discussed at the start of his own work because Manheim’s strengths were too little appreciated.

While tipping his hat to Manheim for linking the theory of logic to the theory of social action, Marcuse also criticized Manheim for allegedly misinterpreting the significance and sequence of Hegel’s categories, and for clinging to elements of traditional logic that were out of place in a reinvented logic of the concrete concept.³ Marcuse wanted to overcome these difficulties in his own philosophy, but in my view Manheim’s work is superior to that of Heidegger and Marcuse both in terms of its fidelity to (and critique of) Hegel, in terms of the issues with regard to concrete thinking raised by Lukács, and in terms of the dialectic itself. Manheim’s book was actually written in 1928, one year before the publication of his cousin Karl Mannheim’s *Ideology and Utopia* (1936), which also developed a sociological, yet *not* a dialectical, concept of thought.

Ernest Manheim on the dialectical nature of concrete concepts

Manheim’s *Zur Logik des konkreten Begriffs* echoes Lukács’s call to concrete thinking and represents a revised philosophy of logic that becomes a theory of being, grounded in our human existence, our social action, our social being, and social reality. To Manheim, thinking is always a form of behavior, a mode of conduct. Manheim contributes to a more concrete paradigm of thought, toward the progressive reconstruction of logic and philosophy. In my estimation, this is more significant than Heidegger’s critique of our “inauthentic” thinking and Marcuse’s critique of our “one-dimensional” mind. I have already indicated that Marcuse (in 1932) abandoned Hegel’s central concept of the dialectic, following Heidegger back to Dilthey and *Lebensphilosophie*. Manheim’s book distances his thinking from Husserl’s and Heidegger’s attempt to understand *the concrete* via

an ontological and/or phenomenological approach in which he finds retained a residual Kantian dualism (between noumenon and phenomenon [18]) and idealism (thus his critique of eidetic reduction [21–23]). Manheim’s work, on the other hand, preserves Lukács’s call to dialectic:

Dialectics . . . is the method of construction of rational (and not rationalistic) concepts from being itself. The construction and systematization of concrete concepts is thus not derived from a creative intuition or phantasy—dialectics is a rational guide in the thinking of reality as a complete system. . . . This reality is human existence in its individual, social, and historical detail.” (Manheim 1930, 10)

With this we come to what Ernest Manheim explicitly helped to teach the twentieth century very early on: logical concepts themselves develop, change, and mature—and much rigorous theoretical effort still needs to be expended in the direction of a more concrete logic (135). Manheim wants us to think in a new way about being. “Before one thinks, one must first exist” (14). Logic “is the explanation of being” (2). “Thinking is a mode of behaving/acting. One may only think about that to which one already has a relationship” (3). Concrete logic differs from abstract, formal logic because it is not something deductively axiomatic and wholly theoretical, like mathematics. Instead it is an explanation of what exists: social being, social behavior, and social structure. Logic must leave the terrain of “pure” philosophy and find its foundation in an analysis of social life and politics. “This ‘formal’ logic has as its object only possibilities of possibilities, actual and determined, nothing ‘concrete’” (2).

In an important and particularly vivid turn of phrase, Manheim stresses: “Logic defines nothing . . . rather it is already defined by being. Logic has no autonomy, nothing that belongs to it alone. It does not have the freedom to determine out of itself what the truth is or should be” (2). Thus Manheim says we must investigate the *sociological* (4) and *historical* foundations of logic. A concrete logic is not so much a matter of just what is

thought as a matter of how what is thought is connected to what *is* and *how* both social thought and *social being* change. Social existence is primary; logic and the movement of thought derived. In reality, each of us already exists in a particular relationship to the object of any research, study, or inquiry, even before beginning to understand the world.

Manheim develops his explication of the new methods of a concrete logic as follows. Philosophical understanding is connected to human behavior. "Reality" is not a predicate of objectively existing "things" but a predicate of what he terms a more "inclusive relationship" (45). Human purposes and intentions are a part of the activity of the social subject, and these must be accounted for epistemologically (35). Intentionality is a form of behavior aimed at transforming existence (40) and is *misapprehended* when used in Husserl's transcendent sense (22) as the "thing-in-itself" (*Sache selbst*) (90). Goals and intentions are said to be inherent in social action, social reality, and what is considered to be knowledge. Social action and social reality must give direction to the formation of concrete concepts. As Manheim sees it, a central point of logic must be to arrive systematically at these intentions, aware that all past historical developments are the products of earlier social intentions, and aware that nothing can simply be willed into existence out of nothing. The most concrete concepts encompass in their own content how change is effected through action by the social subject. Dialectics is grounded in the immanent inseparability of acting (positing) and intending a new reality (40). Social science understands these intentional processes of change as a *system*. Consistent with the early Lukács, dialectics, in this view, applies to the world of social action and social structure, but not necessarily to the realm of nature.

Professor Manheim told me in 1999 that he was personally acquainted with Lukács, respected his scholarship, and knew well his *History and Class Consciousness*, although he had no recollection of the detail of deriving the title of his dissertation from Lukács. "There is no question that the time in which I wrote the dissertation was dynamic. Change was impending. There was

no doubt about it. Change occurred already and was expected for the future.” “Frankly when I was a student,” said Manheim, “I was anxious to see revolutionary changes happen, yet this was not my complete focus” (tape 26 June 1999).⁴ “The aim of coining concepts is *not* to classify objects, but *to understand* (tape 8 June 1999). “Analyzing dynamic social subjects requires different categories, with the expectation of arriving at concrete conclusions, concrete solutions” (tape 26 June 1999).

This seems to undergird a social philosophy not only of logic, but also of praxis in the manner of Lukács and Marx. Stefanie Averbeck notes that Manheim had been a volunteer in 1918 for the communist Red Army of Hungary under Béla Kún. Nor did he shy away from discussing Marx during his career. “He discussed Marx nonetheless, even during the McCarthy era” (Averbeck 1999). Consistent with Marx’s use of the concept *concrete* in the *Grundrisse* (Marx 1973)⁵, Manheim wrote in 1928, “The logic of the concrete concept is not only a methodological abstraction from the concrete, it is the movement toward the concrete” (137). This concept of the concrete, of course, was also rooted in Hegel, as Manheim makes clear: “Speaking in terms of Hegel, when logic extends itself toward what it immanently is, it supersedes itself and dissolves its autonomous sphere, such that what is substantial comes back to itself out of its abstract” (138–39).

Hegel had earlier articulated the need to transform logic in the direction of the concrete: “The emptiness and worthlessness of the logical forms reside solely in the way in which they have been considered and treated. Whilst as fixed determinations they fall apart and cannot be held together in organic unity, they are mere dead forms, and have not dwelling in them the spirit which is their living concrete unity” (Hegel 1951, 1:58). See also Lenin on the concrete in his “Conspectus of Hegel’s *Science of Logic*” (1972). Hegel’s preface to the *Phenomenology of the Mind* also stresses that *history* rather than mathematics is the logic of *scientific* inquiry.

In 1928 Manheim stressed that, above all, the *language* of logic must come to reflect this need for concreteness. Thus, the

terms and concepts he developed would contrast sharply with those being developed by the abstract mathematical paradigm for reason that began to dominate twentieth-century analytical philosophy through the philosophy of science of the Vienna Circle and Anglo-American traditions of logical positivism, empiricism, and symbolic logic.

For Lukács, emancipatory action was paralyzed by reifications of this deductivist sort (the ahistorical and asociological paradigms of logical atomism, the dualism of Husserl's phenomenology). In contrast, both Lukács and Manheim sought to reframe the language of logic within a dialectical philosophy of social action and purposive political praxis. In this view, it is the work of logic to find the mediating concepts that can guide development. That which *needs* to be (but *is* not) is released and generated from within that which is (but other than it needs to be). Building on the concluding sections of the second volume of Hegel's *Logic* (1951), Manheim roots dialectical thinking in Hegel's description of three types of change and becoming: mechanical, chemical, and teleological (Manheim 1930, 122). Teleological processes and teleological thinking are crucial to Hegel's concept of the concrete (Hegel 1951, 2:472). Manheim furnishes an illustration by way of a discussion of a concept's "extension." He asks us to construe a concept in its minimal extension—for example, "a table which is not one"—and to label this concept of the table *A/1*. A concept in its maximal extension, he tells us, would be (authentically perfected and transformed) such that we would assert of the table that it is now a table that really is a table! ("Is that a table!" [47]). We are to label this concept of the table *A/3*. A *concrete* concept is one that indicates the connecting and mediating link between *A/1* and *A/3*—call it *x*—and the fuller, concrete formula for conceptualizing *A* captures the transformative process: *A/1* — *x* — *A/3*. For Manheim, it is precisely this type of dialectical thinking that arises from the historical and political practice of the intellectual civil servant, thinking that actualizes the internal potential within a generative system (i.e., through concrete concepts, not simply class consciousness), and is thus the basis for a realistic and practical approach to logic. Concrete, teleological relationships

conceptually involve “reaching over” and “encompassing,” including $A/3$ in A/I , seeing A/I as necessary for $A/3$ (54)—and thus these are concretely interrelated in a teleo-logic (cf. “The Inclusive Relationship and Its Dialectic,” 45–58). Immediate relationships and mediated relationships dialectically constitute a totality that encompasses the appropriate purpose and the authentic good of what is, and thus may grasp politically what it has grasped intellectually and facilitate its actualization. “Only in the dialectical process, in the dialectical relationship to the other: in its mediating relationship toward the subject ($x — A$) does the concept become a qualitative unity amid multiplicity” (85), which is to say concrete.

Concrete logic involves the dialectification of our concepts of time, history, master/servant,⁶ capitalism, war, peace. Each of these concepts—like also the concepts of *being* and *nonbeing*—is in itself one-sided, isolated, abstract. Truth requires the dialectical movement of thought that can mediate extremes and encompass the real in a more comprehensive (more *concrete*) concept that includes even polar opposites, ingeniously envisioning their unity-in-difference. The concept of *becoming* is one of the most concrete concepts, according to Manheim (144). Through such mediating concepts we can grasp that dimension of the real that “is necessary even before it is possible” (149).

I should like to mention at this point a very distinctive feature of Professor Manheim’s book on logic and being. I am referring to his repeated utilization of war and peace imagery⁷ to illustrate the concept of the concrete (which he “may have done unconsciously,” according to our taped conversation on 26 June 1999, because of the dialectics of existence and nonexistence involved in Hegel’s logic, and because of his then recent status as a both a combat veteran and a prisoner of war). For example: “in the language of analytic logic, the concept [war] must always remain abstract” (85). “If a war needs a period of peace in order to be prepared, this peace is a moment, a phase, in the development of the war. . . . War stands at the beginning and the end. . . as A/I . . . as $A/3$ Peace is x . The outline is $A/I — x — A/3$ ” (52–53).

It seems to me that by the same token Manheim is implying that to move from the condition of a “peacetime that is not a peacetime” to a condition of authentic and genuine peace, we will need to discover the necessary and sufficient modes of mediating social thought and social action that can move our world in the right logical and political direction.

I find all of this to be Ernest Manheim’s extension of classical German philosophy of history and education. Building upon the Marxian insights of Lukács, his theory seems to stress that genuine education must be grounded in the concrete understanding of being as a process, enabling us to envision from the trajectory of the conditions of the present intelligent choices about real possibilities for our future. Critical thought and critical systems-thinking require a dialectical understanding, a dialectical logic of the concrete totality of being and meaning and transformation. But conduct on the basis of reality itself is Manheim’s ultimate measure of concreteness (6). Manheim’s dialectic is that of the social subject’s action; it is decidedly activist, not passivist. Rationality inheres in acts, and acts always occur in a system of behavior, though they need not always function to *replicate* such a system.

Significantly, Manheim’s work, like that of Marx, is an attempt to set Hegel on his feet or turn him right side out. It attempts to reverse what Manheim calls Hegel’s *emanatism* (Manheim 1930, 13). Emanatism, of course, denotes “emanating from,” or “flowing out of.” In Hegel’s philosophical emanatism, the material world flows out of Absolute Spirit/God; the physical universe is an outflowing of the pure logos. According to Averbeck, Hegel’s logical emanatism, that is, “the derivation of all change in the real world and its internal logic from the superordinated idea of the ‘world spirit,’ is something that Manheim sought to transform into a logic immanent within reality” (14). From Manheim’s point of view, the material foundations of logic exist socially prior to and outside of any philosophical constructs otherwise thought to be “immaculately conceived” (if I may borrow Nietzsche’s apt phrase).

In conversation, Manheim elaborated:

In Hegel's system everything emanates from an idea, of course this is not widely accepted, but this is a characteristic trait of German idealism . . . a Marxian systems theory *overcomes* emanantism, . . . but Marxism has its limits . . . any single ideology can be overexpanded. To analyze a society you would have to know about resources, distribution, distribution of information, ethnic, geographic factors, etc. . . . Thoughts of people—the horizon in which they think—is grounded in the relations of production. This is more than 50 percent correct, but tribal and national conflicts are not completely traceable to (economic) substructure.” (tape 6 June 1999)

Manheim's work on dialectic also rethinks the Hegelian concept of the negation of the negation and the theory of thesis-antithesis-synthesis (103). “Not in an emanatist three-stage cycle (*Dreitakt*), but rather in a four-stage cycle (*Viertakt*) does the dialectical process unfold (103).

The *Viertakt* is outlined as follows: (1) positing and negating; (2) negating the positive and positing the negative; (3) affirming (positing) the positive and denying (negating) the negative; (4) actualizing the positive in itself (synthesis). This new concept of negation is Manheim's unique contribution and theoretical innovation that he feels is better capable of understanding, say, war and peace: “Thus peace does not seem to be just the immediate countercondition to war, instead it is its (temporal or social, strategic) existential precondition” (109). I understand him to mean that dialectics must begin with an understanding that: (1) the positive and the negative exist simultaneously; (2) the negative aspects of this circumstance must be recognized and acknowledged—the obvious, though one-sided, positive benefits must be discounted as one-sided; (3) yet we must affirm the best within these positives while the negative aspects of experience must be combated; (4) finally, a reality emerges in which the negatives have been refined out, the positives polished, and the most promising potentials are freed and actualized.

The major contribution in Manheim's 1928 treatise is this thought-provoking *philosophical* treatment of logic and the dialectic. He simultaneously calls our attention to what has truly emerged as a crucial task for the twentieth century: developing the implications of the fields now known as the "social studies of science," "world systems theory," and "critical realism"—for a philosophy of logic and a philosophy of education. This is a first book that helps us think about a profound topic in an important new way while critically pursuing a more concrete *theory of knowledge* and a more emancipatory *theory of the social sciences*.

In many ways Ernest Manheim's early work is congenial to my own today on the social foundations of logic and education. I believe that a kind of education in the humanities and the social and natural sciences can help the individual overcome powerlessness in the face of global and local processes of alienation. This begins with the rational kernel of Hegel's historical philosophy of *education against alienation* that never confined dialectic to human or social existence. Education in the dialectical spirit of Hegel, Marx, and Engels must afford a world- historical, international, and multicultural perspective on learning, examining the pivotal social and intellectual struggles that have led to the emergence of concrete standards of criticism (i.e., Manheim's mediating concepts) in ethics, logic, art, the natural sciences, and production technologies. These concrete mediating concepts constitute the very *criteria* of judgment that critical intelligence requires. Over time, the unfamiliar, even alien, conceptual products of earlier periods will be assimilated, opposed, absorbed, and transcended. Because philosophical standards collide, develop, and transform, critical education continually requires inquiry, analysis, seeing new connections, and reevaluation as the ongoing methods of critical science and critical realism. Dialectical educational philosophy is rooted in the social dimension of knowledge: active learning through questioning, with the emergence of reason through discourse, the development of logic through debate. No side in any controversy is programmed a priori to win, and truths that are real are neither permanent nor

merely perspectival. They are generative of greater truth. I continue to stress, however, that the public and democratic methods of critical social science discern irreducible contradictions within a nonetheless unitary and changing social reality. A living and combative philosophy fully engaged with reality derives its drama from this debate and simultaneously produces real insight into the logic of history and society.

I believe that the pedagogical implications of this philosophy militate against a course in logic oriented exclusively toward a calculus of an artificial and symbolic language. Such a course would be *unphilosophical* in Hegel's or Manheim's terms because its formalism would seem to separate permanently reason from its real social and cultural substance and the conflicts that are seen as the very engines of the education of the human reason. Knowledge is always knowledge of a dynamic reality, while formal systems tend to be abstract and static. The development of critical intelligence and the formation of mind in our students hinge upon the recovery of the concrete in our course work. In *Democracy and Education*, John Dewey summarized a similar position: "Philosophy is thinking what the known demands of us. . . . It is an idea of what is possible, not a record of accomplished fact . . . it is hypothetical like all thinking. It presents us an assignment of something to be done—something to be tried" (Dewey 1966). Jürgen Habermas (1991, 1984), Niklas Luhmann (1987, 1983), and the new British critical realists like Roy Bhaskar (1994, 1993, 1989) are working out fascinating contemporary elaborations of these positions.

Ernest Manheim's early work makes one thing very clear: logic's core is not the untetherable human spirit, but the structured political-economic behavioral systems that condition human thought and freedom. If the real, which must always be discovered/mediated and is never simply given, has not been made rational during the twentieth century, we must in the twenty-first undo the irrational social systems that the abstractions of formal logic have helped to reproduce. We must restore concrete (historical and material) content to critical reason. We must continue to seek concrete systemic knowledge, as Ernest

Manheim counsels, to find those forms of theory and practice that can most effectively embrace the authentic social good that is logically and actually ours to possess.

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Translations from German sources were done by the author.

Philosophy Department
Kansas City Community College

NOTES

1. This concrete *Seinsstruktur* is a *Sorgestruktur*, that is: the human being is fundamentally and concretely at its core, a care-structure. “The expression, ‘care,’ signifies a fundamental existential-ontological phenomenon, which at the same time is nothing simple . . . If we construe care as being ahead of itself, while being already in, and being with, . . . we make clear that this phenomenon is structurally differentiated and interconnected” (Heidegger, 1967, 196). In this care-structure Heidegger theorizes that the temporal dimensions (past, present, and future) of our being-in-the-world are explicit structures of our being over time, and thus of our (ultimately more concretely understood) consciousness, concern, and conduct.

2. Marcuse’s philosophical humanism is grounded in a depth-dimensional ontology of sensuousness that the aesthetic imagination ostensibly captures as the eternal interplay and opposition of Eros and Thanatos, desire and destruction, gratification and alienation (Reitz, 2000). At this level of analysis, it is a version of philosophical anthropology that utilizes the humanities as a means of understanding what are held to be the universal characteristics of human needs, conditions, and conflicts. But how can we best understand the social, cultural, and economic diversity of the human experience today and the multiple forms of oppression that we continue to challenge? Can we adequately understand this multidimensional reality primarily through the undifferentiated essentialist ontology furnished by Marcuse in both his philosophy of art and theory of alienation? Even if Marcuse and the Frankfurt School are correct in analyzing human beings at the level of a philosophical anthropology, we, and they, still need to account for human sociocultural specificity and the historical aspects of political-economic exploitation. This diversity is manifested in the arts and a place must be found for it in critical theorizing, as Manheim stresses. For me the issue here is really one of working with an ontological, as opposed to a dialectical-materialist, aesthetic and educational philosophy.

The supervisors of Manheim’s dissertation at Leipzig, Theodor Litt and Hans Freyer, were also sympathetic to *Lebensphilosophie*. In my estimation,

Manheim's interpretation of Hegel's logic and philosophy of history in *Zur Logik des konkreten Begriffs* owes much to Lukács and Marx and little or nothing to *Lebensphilosophie*, which I believe may account for some later tension with Freyer especially. My account differs on this point from that of Stefanie Averbeck. She writes, "Manheim's concept of reality in 1928 was closely tied to the perspective of *Lebensphilosophie*" (1998, 17). This claim does not seem to me to be substantiated in her otherwise exceptionally strong account of Manheim's early work.

3. See Marcuse, *Hegels Ontologie* (1968, 4). In Seyla Benhabib's translation, Marcuse's reference to Manheim reads as follows (although she misspells Manheim as Mannheim):

The more recent Hegel interpretations, insofar as they concern our problem here, are referred to at relevant points in the text. At this point only Ernst Mannheim's *Zur Logik des konkreten Begriffs* (1930) should be mentioned, a work that in our opinion has been too little appreciated. Mannheim attempts to include the concrete activity of the comprehending human being within the concept of the "concept," and to unfold the categories of the *Logic* as modes of comprehending activity. "Thought is a modality of being in the verbal sense, and thereby activity." "The concept, in its proper sense, is that relation to an object, be it in an appropriate or inappropriate manner, which is constituted as imagination or consciousness, etc." (*Zur Logik des konkreten Begriffs*, 3). But what makes the construction of this "concrete logic," once embarked upon, so ineffective is twofold: first Mannheim presupposes an ordering and a significance of the categories of Hegelian logic different from the Hegelian one—a point not discussed by him. Second, problems of traditional logic, and particularly the doctrine of judgment, cannot be forced on this other dimension, which has a completely different ground and on which Mannheim wants to base the *Logic*." (Marcuse 1987, 325–26)

Is Marcuse's first objection made with reference to Manheim's shift from a three-stage to a four-stage dialectic? Certainly Manheim does discuss this shift (103). Or does Marcuse refer to Manheim's critique and inversion of Hegel's emanatism, also explicitly discussed throughout the text? Does Marcuse's second point about the doctrine of judgment (*Urteilslehre*) refer to Manheim's preservation of teleological thinking while attempting to ground logic sociologically? If so, this does seem to be a pertinent point.

Many thanks to David Smith of the University of Kansas Sociology Department for bringing this important Marcuse reference to Manheim to my attention.

4. In 1999, I had three half-day interviews with Manheim (taped at Ernest and Sheelagh Manheim's Kansas City residence by Fred Whitehead on 8, 12, and 26 June).

5. Marx's key contribution and statement: "The concrete is concrete because it is a synthesis of many determinations, thus a unity of the diverse" (*Einheit des Mannigfaltigen*), the phrase that Manheim also tends to utilize (see especially 85, 90), should be explicitly recalled from the famous "Introduction" in the *Outlines of the Critique of Political Economy (Grundrisse)*:

It would seem right to start with the real and concrete, with the actual presupposition, e.g. in political economy to start with the population, which forms the basis and the subject of the whole social act of production. Closer consideration shows, however, that this is wrong. Population is an abstraction if, for instance, one disregards the classes of which it is composed. These classes in turn remain an empty phrase if one does not know the elements on which they are based, e.g. wage labour, capital, etc. These presuppose exchange, division of labour, prices, etc. For example, capital is nothing without wage labour, without value, money, price, etc. If one were to start with population, it would be a chaotic conception of the whole, and through closer definition one would arrive analytically at increasingly simple concepts; from the imagined concrete, one would move to more and more tenuous abstractions until one arrived at the simplest determinations. From there it would be necessary to make a return journey until one finally arrived once more at population, which this time would be not a chaotic conception of a whole, but a rich totality of many determinations and relations.

The first course is the one taken by political economy historically at its inception. The 17th-century economists, for example, always started with the living whole, the population, the nation, the State, several States, etc., but analysis always led them in the end to the discovery of a few determining abstract, general relations, such as division of labour, money, value, etc. As soon as these individual moments were more or less clearly deduced and abstracted, economic systems were evolved which from the simple [concepts], such as labour, division of labour, need, exchange value, advanced to the State, international exchange and world market.

The latter is obviously the correct scientific method. The concrete is concrete because it is a synthesis of many determinations, thus a unity of the diverse. In thinking, it therefore appears as a process of summing-up, as a result, not as the starting point, although it is the real starting point, and thus also the starting point of perception and conception. The first procedure attenuates the comprehensive visualisation to abstract determinations, the second leads from abstract determinations by way of thinking to the reproduction of the concrete. (Marx 1986, 37–38)

6. Over the course of my interviews with Manheim in June 1999, he elaborated several interconnected themes revolving around a key point: philosophy in the twentieth century has contributed to the progress of historical and

systemic thinking. Systemic thinking is the basis of concrete, critical understanding. At one point in the conversation, I asked if Hegel himself had not clarified the origins of systemic thinking and concrete logic in his analysis of the master/servant relationship. Manheim responded that this mode of reasoning and logic arose in Germany under princely rulers in the nineteenth century, well before Bismarck and German national consolidation, going back at least to Hegel. He continued with a particularly intriguing interpretation of the pivotal master/servant passage from the *Phenomenology*, saying that the nineteenth-century German princes thought that they themselves were the active subject of history and culture, yet they were mistaken. It was not the noblemen who created culture, rather those who educated and advised them, their highly cultivated civil servants. The advisers to the princes were not themselves landowners or noble, but being learned they could better serve the regent. Being learned did not mean being greater. The educated adviser was indeed subordinate to the “man of substance,” the one who counts, the one who makes decisions, the one who really does things. Yet the princely advisers were at the same time the more fully knowledgeable ones. In communication with one another, through their work they informed the universities. They thought contextually rather than in terms of individual historical events. Manheim also stressed that they were always compromising, never ignoring the man of substance, and thus they could be confident their advice would become real. They conceived of, and taught, what has become the philosophy of classical German idealism. Taken as a whole, this produced a way of knowing that was greater than both themselves and their masters. It was a philosophical system stressing the importance of theoretical education in comprehending the internal necessities of historical development as these are linked to authentic future social action. In this manner, Manheim highlighted the philosophical forces he believed to have importantly influenced the progressive elements in twentieth-century development of theory in historiography, logic, social science, and education.

Beyond this, Manheim’s remarks were astonishing to me for many reasons. Not only do they clearly counter Karl Mannheim’s account of intellectuals as *freischwebend* [free floating], they also comprise a freshened interpretation of Hegel that runs counter to the familiar Marxist account of the class consciousness of hegemonic intellectuals (contrasting with Gramsci’s *Prison Notebooks*, for instance). They also differ from the more recent “standpoint epistemologies” (of Sandra Harding, Nancy Fraser, Nancy C. M. Hartsock, Patricia Hill Collins) which locate the consciousness of the servant within an oppressed group, such as women or racial minorities. Furthermore, Manheim’s account seems to be also an extraordinarily charitable reading by a German-Jewish refugee from Nazism of German *Bildungshumanismus* (higher educational humanism) after the Holocaust and contrasts sharply with the Frankfurt School’s assessment, also in U.S. exile near the end of World War II (Horkheimer and Adorno 1972 [1944]), that classical German philosophy and culture had to be rejected for having failed fatally to stop fascism.

Andrew Feenberg highlights “The Heritage of Classical German Philosophy” in his *Lukács, Marx and the Sources of Critical Theory*: “Like Engels and the mainstream of the Marxist tradition, Lukács too sees more at stake in the socialist movement than a change in property relations; the struggle will also decide the fate of reason itself” (1981, 89).

Engels, of course, saw dialectical materialism as the outcome of classical German philosophy:

Only among the working class does the German aptitude for theory remain unimpaired. Here it cannot be exterminated. Here there is no concern for careers, for profiteering, or for gracious patronage from above. On the contrary, the more ruthlessly and disinterestedly science proceeds the more it finds itself in harmony with the interests and aspirations of the workers. The new tendency, which recognized that the key to the understanding of the whole history of society lies in the history of development of labor, from the outset addressed itself preferentially to the working class and here found the response which it neither sought nor expected from official science. The German working-class movement is the inheritor of German classical philosophy. (Engels 1990, 397–98)

Similarly for Lenin in 1913: “But Marx did not stop at eighteenth-century materialism: he developed philosophy to a higher level. He enriched it with the achievements of German classical philosophy, especially of Hegel’s system. . . . The main achievement was *dialectics*, i.e., the doctrine of development in its fullest, deepest and most comprehensive form” (1973, 24).

7. “The existential weight of an attack seems to stem from the danger it brings to those attacked. . . . A successful defense has attained the existential weight of the attack, an unsuccessful defense falls under the weight of the attack” (Manheim 1930, 6).

“The overarching moment of the process *i* has two forms: *I* and *3*. The first member (a war that is not a war) has the smallest possible extension within the third; the third no longer contains the negation present in the first. . . . The medium *x* is not just a mediation between *A* and itself; it is an actualizing (*potenzierendes*) moment” (54).

“A preconceptual understanding of war is a colorful array of multiple dimensions, . . . but only the concrete concept (*Inbegriff*), its totality, is war” (84).

“The possibility (*A/I*) of war (=A) is nothing else but the tendency of this possibility to supersede itself; it contains from the outset its own negation, which is completed inasmuch as it changes into actual war” (95).

“Thus peace does not seem to be just the immediate countercondition to war, instead its (temporal or social, strategic) existential precondition” (109).

“The nature of a battle presupposes two existing troops of fighters. . . . Each of these two armies, apart from the other, is no fighting troop, but only the sum of uniformed . . . human individuals” (119).

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Globalization: Part 2—Its Radical and Marxist Critics

Morris Zeitlin

How radical critics see globalization

The radical critics of globalization, opposing support by mainstream and academic advocates, move the discourse out of the shallows of the 1970–1990 economic recession to the deeper waters of history where they find its actual roots. They see it as a new stage in the development of capitalism, bearing all the contradictions and evils of its system. Rather than an inevitable historical process society must endure, globalization is, radical critics argue, a set of deliberate policies conceived and promoted by an economically powerful capitalist minority to dominate the world's economic activities. Its glowing promises are false, for the capitalism that sired it is inherently unjust, unstable, and unsustainable. The world's people must therefore oppose it in self-defense (Korten 1996, 14–15).

Not all radical critics of globalization hew to one course. As we might expect, we find a right, center, and left. Radicals opposing globalization come from different strata and ideologies of the great middle class, standing at different economic and political distances, hence dependencies and influences, from the two major contending classes in capitalist society. They may be grouped into moderate, middle-of-the road, and left radicals who share some common ground. All question the purpose of globalization and whom it serves; all examine critically its

consequences, contradictions, and limits; all see it driven by powerful monopoly corporations promoting neoliberal laissez faire policies of freedom from nation-state regulation; all see it increasing social inequality worldwide, enriching the rich and impoverishing the poor; all urge a global movement for greater democracy to counter the monopolistic policies of globalization (Gill 1996, 205–6).

1. The moderate radicals

Like the mainstream advocates, the moderate radicals see in globalization a new world order more hostile to democracy than the one that emerged early in the twentieth century when Western states “internationalized,” trying to prevent coming to blows with their competition in the “age of imperialist colonialism.” The present internationalization differs from earlier one in two ways. It is conditioned by a new technology that made finance capital highly mobile, and by a change in the method of production from the inflexible Fordist mass production of goods and services to the flexible computer-controlled small-lot, just-in-time production (Gill 1996, 206).

They see it not only as internationalization of economics but also of politics, culture, and ideology; not only “the interpenetration of industries across borders [and] the spread of financial markets, but also the diffusion of identical consumer goods, . . . massive transfer of labor primarily from the South and East to the West and [an] emerging worldwide preference for democracy” (Mittelman 1994, 318).

But they find fallacious the vision of a free global market idealized by its mainstream advocates. A free market, they think, is unachievable because it implies the breaking of state-regulated income distribution to maintain market demand on which the market depends, and because it gives rise to opposing class forces and political struggle (Gill 1996, 217–18). Its alleged successes have already produced big failures for its promise of world prosperity. The economic adjustments the International Monetary Fund (IMF) has demanded of developing countries as a condition for credit have forced them to open their borders to free-market competition, converting their self-sufficient economies to disad-

vantageous production for export. Fifty years of such “free trade” increased world poverty, spread hostility and wars, widened the gap between rich and poor countries, and accelerated destruction of the world’s environment (Korten 1996, 15) In short, the world is “experiencing a deep civilizational crisis [brought about] by the powers of capital and market forces.” The prolific technology they advanced, as well as the military spending and sporadic wars generated by their world politics, while managing to feed the economy, lulled the people into “a sense of fatalism and indifference to the widespread decay in society” (Gill 1996, 206).

In sum, they see globalization forming an unwholesome world order developing mainly within some fifteen world cities led by the principal financial centers of New York, London, and Tokyo. In these cities, linked by a complex pattern of investment, trade, and information grids, sections of ruling classes shape the start of a transnational capitalist class “committed to . . . neo-liberal political economy associated with globalizing capital.” But the islands of power and privilege in these world cities are surrounded by “seas of poverty, insecurity, . . . violence, disease and epidemics, and famine . . . —a pathological situation” (Gill 1996, 219–20).

The moderate radicals urge a new political movement to combat the evils of globalization. What is needed, they say, “is to create new political alliances and alternatives against neoliberal forces . . . [with] an ethic of responsibility and tolerance of differences . . . [and] to move from rather economistic . . . defensive alliances and coalitions to a new form of world society . . . , a more cooperative, equitable, just . . . world order.” Why new alliances? Because “the traditional left has often failed to take the initiative on the question of democracy. . . . The forces of the left need to renew and to take more seriously their commitment to democratic principles. . . . This is a precondition for . . . a possible and desirable world order—a form of democratic globalization” (Gill 1996, 223).

2. The middle-of-the-road radicals

The middle-of-the-road radicals also see in globalization the rise of a menacing new world order, but take a more militant

stand against it. They are alarmed by the horrendous abuse inflicted on nations and nature by the growing economic power of a few hundred global corporations that depress the incomes and working conditions of millions, cut their public services, ruin small farmers and businesses, debase community environments, and weaken democratic controls over government. They see corporation-manipulated market forces of unbridled capitalism compelling cities and countries to compete for corporate investment. This competition causes a decline in living standards to the levels of the poorest and most desperate. What defenses the people have won within nations against corporate power have been largely outflanked by globalization-complying policies leaving the people confused and defeated.

The middle-of-the-road radicals explain the development of globalization from a wider historical perspective than do the moderates. They place it in the context of capitalist history since the Great Depression of the 1930s but trace its roots to the post-war 1944 Bretton Woods Conference agreements. At that conference, the victorious Allies, fearing a possible depression resulting from chaotic competition, set up the International Monetary Fund and the World Bank to aid and control world economic development through global free trade. The two institutions functioned successfully until 1975.

During the economic crisis of the 1970s, however, new developments emerged. To deal with the sharpened competition for world markets, the major corporations began forcing a return to neoliberal *laissez faire* policies in national politics. The major corporations set about to force governments to renege on their postwar compromises and concessions to organized labor. Using the IMF and the World Bank to form a system of global economic governance, they bypassed nation-state regulations. Thus the process of globalization began, driven by world competition and lubricated by phenomenal technological progress in production, transportation, and communication (Brecher and Costello 1994, 44–50; Korten 1996, 15).

To augment their competitive powers and maximize profits, TNCs took to cutting labor and overhead costs by moving

production to low-cost countries, streamlining their operations, reforming government policy, and building a system of global governance. Thus production began moving to “expert processing zones” in poor countries for assembly of parts made elsewhere and shipped to global market points. The low-cost production was secured by threats to move the assembly plants to other poor countries. The TNCs’ global production and trade operations gained scope along with the growth of their even more profitable financial speculation in international bonds, stocks, and currencies. Linking branches of various industries through financial deals, they formed international networks of suppliers and subcontractors coordinated by means of advanced communications technology. Their growing size, flexibility, and competitive power left smaller corporations unable to compete. Economic opportunities became less accessible to corporations with a poorer global reach, which thus became prey to mergers and takeovers by the more powerful TNCs (Brecher and Costello 1994, 51–54; Mander 1996, 16).

As globalization advanced, the TNCs joined to press governments to loosen restrictive business regulations and support supranational enterprises, like the Group of Seven (G-7), the General Agreement on Tariffs and Trade (GATT), and the North American Free Trade Agreement (NAFTA), and the wider roles of the earlier established IMF and World Bank, enabling TNCs to expand markets. Gradually, the supranational governance agencies set the rules within which nation-states must operate (Brecher and Costello 1994, 56–62).

Thus these radicals see contemporary capitalism changing from the old system of nation-based and nation-state-governed economies into a global economy and global governance, enabled by advancing information and transportation technology to move quickly and coordinate financing, production, and trade on a global scale. They see this process as an irreversible change that poses basic challenge to democracy to understand what is happening and learn to control the trend toward an economic, political and social decline in the old nation-state system. When each firm, city, and country competes by cutting wages and

social-service costs, incomes drop, infrastructures decay, and buying power decreases; inevitably stagnation and recession follow. The baleful effects of globalization have shown up in the slowing of the Gross National Product (GNP) from about 5 percent per year before 1973 to less than 2.5 percent since. The richest 1 percent of the U.S. population nearly doubled its share of the national income from 8 percent in 1980 to 14.7 percent in 1989. The world's richest fifth now takes over 80 percent of the world's income and the poorest fifth only 1.4 percent; democratic controls over U.S. national and local governments are weaker; the destructive global rivalry causes nations to stay armed and dangerous, and incites racism and extreme nationalism around the world (Brecher and Costello 1994, 12–19, 25–32).

They brand as irrelevant the claim by mainstream advocates that freeing world trade from national barriers would bring efficient world specialization and thus benefit all. Most global trade agreements, they stress, “are far less about reducing barriers to trade than about reducing barriers to the movement of capital.” Furthermore, while deregulation of business controls may increase world competition in the short run, it may well increase monopoly in the long run. Indeed, it is already producing transnational mergers, joint ventures, and collusive arrangements with no fear of a possible global antitrust policy to hinder them.

Moreover, globally strong TNCs compete with weak national corporations. The latter, feeding mainly on the national economy, urge their governments to serve their interests with more public investments and protect them from foreign competition with tariffs and trade wars. For national corporations, globalization has meant a foreign threat they have tried to forestall ever less effectively. Globalization has blurred the difference between “American” and “foreign” as more American products are made of parts produced and assembled in many countries (Brecher and Costello 1994, 68–74).

These radicals conclude that it is therefore futile to contest globalization merely by boosting the ability of the national economy to compete. The freely investing and disinvesting TNCs can force, by threatening economic abandonment, any nation to

comply with their demands. The new reality demands building world cooperation to control both the transnational and national corporations whose outrages against humanity require a global struggle against the destruction of the world's environment, nuclear proliferation, overpopulation, and violation of human rights (Brecher and Costello 1994, 74–77).

They propose opposition to the autocratic “globalization imposed from above” with a democratic “globalization from below” in the form of international cooperation between movements for environmental protection, women's rights, and peace, and against oppression. Such movements are active in many countries, but are fragmented in a world divided by different cultures, are only vaguely connected, and are poorly recognized. The flood of balldoo that globalization represents the wave of the futures hence resistance to it is pointless overwhelms all sources of information (Brecher and Costello 1994, 79–85).

In view of this fragmentation, how do these radicals propose to deal with the evils of globalization? They express no faith in the traditional means of struggle. They label obsolete political parties, trade unions, ad hoc people's movements, and even local and national governments—all having been bypassed by the global corporations and markets. The only way to affect the TNCs and the process of globalization, they hold, is transnational citizen action.

But how can detached and fragmented citizen groups fighting scattered battles around the world be effective against the global giants?

Middle-of-the-road radicals find inspiration in Jonathan Swift's *Gulliver's Travels*, in which the tiny Lilliputians capture an invading giant by tying him with many small pieces of thread. Local community organizations, they think, allied in a global network, can follow a similar strategy in defense of democracy and pin down the global corporate giant (Brecher and Costello 1994, 105–6).

“The institutions and movements ordinary people use to preserve their interests in the era of nation-based economies” must “redefine themselves as part of a global effort to change the rules

of the game.” Labor unions, for example, cannot stay the same for the global struggle. The great global variety in the economic, political, and cultural lives of workers, plus growing concern for the natural environment and gender equality, mandate changed union strategy. National labor unions must work closely in global cooperation with other movements. They must become social movements and reach out into their communities building coalitions with environmental, women’s, religious, human rights, and other people’s organizations (Brecher and Costello 1994, 143–60).

This outlined strategy is followed with a wishful ideal design for reversing the global corporations’ power by “democratizing government at every level from the global to the local [and transferring] power, wealth, knowledge, and organization from haves to have nots.” This rewires changing “the decaying nation-state based economic system [into] a multilevel one world economy in which public institutions regulate economic forces and allocate resources at multiple levels from local to global” (Brecher and Costello 1994, 173–74).

3. The left radicals

Left radicals see globalization from a wider historical perspective. They see it not as a distinct and separate phenomenon, but as a stage in the development of capitalism, a period of structural change logical to the global expansion of monopoly finance capital (Mittelman 1996, 231).

This analysis leads them to depart from the conclusions of other radicals. The world economy, they think, is not now ordered by new rampant market forces dissolving national borders, economies, and cultures, making national politics irrelevant. The globalization its mainstream advocates extol, and some radicals accept, is a myth, a myth born of blindness to the fact that the present world economy has existed since industrial production began; that truly global corporations are relatively few—most are nationally based; and that capital mobility does not shift investment to the world’s developing countries but stays largely, as it always has, within the developed capitalist countries. Further-

more, faster international trade and some deregulation of business practices neither endanger national economies nor prevent new forms of national and international political controls (Hirst and Thompson 1996, 1–2).

The exaggeration by this myth of certain trends in world economics sows the belief that because the global market can evade public control, democratic politics can accomplish less than is actually the case. Indeed, the term “global market” obscures the meaning of current changes in the world political economy. It interprets them to mean not just an increase in the normal performance of the world economy, but the rise of a new and different economic structure. Such reasoning is false. Increasing foreign trade and capital flows do not in themselves indicate the emergence of a new global economic structure. They happened in the international economy even before World War I.

A truly globalized world economy would subsume the national economies into a united whole of nationally located subordinate activities. National economies and nation-states would no longer dominate world economic affairs. This scenario does not describe the current stage of capitalist development. Expanding production and trade have only increased economic ties between national economies. It is true that in this process, specialization and international division of labor increase, and investment relations increasingly replace trade relations. But the nations remain relatively separate economically with “domestic and international frameworks for policy-making and the management of economic affairs” (Hirst and Thompson 1996, 8).

What lends evidence to the myth of a globalizing economy is an outward appearance of an economy produced by increasing numbers and growth of multinational corporations and growing international trade. Although rooted in their national economies, these corporations are internationally oriented, hence their domestic political strategies are strongly influenced by their competition in foreign markets. This is nothing new, however; big corporations were similarly influenced in the 1945–1975 boom years.

The evidence shows that TNCs are not growing wildly and that globalization of production has been exaggerated. The

continued prominence of national corporations and the weak growth of true TNCs suggest that globalization is not taking place. Although the major producing, trade, service, and finance corporations have been increasingly extending their operations worldwide since the 1870s, this should not be confused with economic globalization (Hirst and Thompson 1996, 8, 12–17; Mittelman 1996, 231).

Admittedly, the world economy has changed considerably since the 1870s in structure and governance, although some of the changes may be temporary and reversible. Speculation on world money markets, for example, could diminish, and should deregulation prove counterproductive in national politics, re-regulation could follow. The most enduring and significant post-1970 development, however, has been the formation of the supranational trading blocs of North America, Europe, and Japan. The emergence of these competing regional blocs may signify more the danger of global conflicts than the birth of a truly global economy (Hirst and Thompson 1996, 196–99; Mittelman 1994, 318).

4. The radicals' views of the nation-state

Radicals differ on the role of the nation-state in the commonly accepted rise of globalization. Those who find themselves close to mainstream thinking tend to see the state gradually diminishing to the role of a reluctant agent, for although corporate flight robs the state of revenues, “only within the ambit of globalization may policy decisions be made” (Mittelman 1994, 321–23).

Middle-of-the-roads think that nation-states are not just passively swept up in the swell of globalization, but rather have been its most important determinants. Yet globalization presents a number of challenges to the ways in which they have traditionally functioned, considerably changing their structure and behavior (Holm and Sorensen 1995, 7).

The left radicals part company with their fellows on the changing role of the nation-state. They think that the rhetoric about the nation-state becoming outdone by global market and

corporate forces and capital mobility, and thus reduced to a mere provider of local services essential to global capital, is overblown propaganda by the extreme right. This propaganda tries to swing public opinion to the notion that the labor, social welfare, and environmental protection laws weaken the competitive powers of Western society against the industrializing economies of Asia. True, the role of the nation-state has changed since the 1970s in that it has less than exclusive control over economic and social processes within its borders. Yet it governs the areas where global economics materialize and creates the conditions for international governance, “providing legitimacy for, and ensuring the accountability of, supra-national governance mechanisms.” For the nation-state retains the power and control over its territory and population and thus also the international legitimacy that no supranational agency can attain (Hirst and Thompson 1996, 171–76).

5. The radical critique of globalization—Conclusions

Radical critics have examined the economic and political changes after World War II and have eloquently revealed the development and effects of globalization. They refute the claims of its advocates and convincingly show that global “free trade” does not benefit all but mainly a small rich minority; and that the assumption that a self-governing free world market will make a balanced, safe, and prosperous world is false because price signals cannot tell the onset of crisis due to rising poverty or the destructive effects of environmental pollution.

They show that the “structural adjustment” rules imposed by global governance agencies on local economics have increased poverty, cut public services, and pitted social groups, cities, and countries against each other.

But the radical critics fail to show how the evils of globalization may be effectively fought. Within the historically narrow frame of the late twentieth century, they found no political agency able to challenge the dominance and tactics of seemingly all-powerful globally expanding capitalism. For its challenger, the working class, weakened by technologically transformed

production, was no longer able to champion the people's democratic rights. Radicals can only pin their hopes on vaguely varied and diverse groups of "people" moved by "moral rebellion" against violence to the environment and human rights, and by visions of a humanity united to end poverty, oppression, and war. Such "people," loosely organized in various ad hoc local movements pressing for various reforms, will check in some undefined way the excesses of globalization and build a transnational civil society.

Even if moral outrage creates many such diverse and scattered groups, their effectiveness is patently open to question. Since such groups lack the political power of an organized, united, and resolute class-conscious opposition, the dominant class could ignore or coopt them, or ward them off one by one.

The radical critics, astute and morally offended, are yet limited by their class position. Caught economically and politically between the dominant and challenging classes in current history, they can only criticize and protest the evils of expansionist capitalism but cannot muster the strength or vision to fight back consistently.

How Marxist analysts see globalization

1. Where the Marxists begin

Mainstream advocates and some radical critics see globalization as a qualitative change in capitalist society. The former look pragmatically at recent economic and technological changes and see the dawn of a new world order—overcoming past conflicts, erasing old borders, and removing obstacles to progress—a world order to be embraced and affirmed. The latter see in it possible promise but ominous dangers that require opposition and reform.

By contrast, Marxist analysts maintain that globalization did not result simply from the economic crisis of the 1970s and the information revolution of the late twentieth century. Its emergence and growth have deep roots and reasons in the history and development of the capitalist economy. Looking at it within the small frame of its own short history, they say, distorts where

globalization came from, what it is, why and how it grows, and how it affects present and future world affairs. It can be fully understood only as a natural outcome of capitalist development. It is not the start of a new society, as alleged. It is a creature *of* capitalist society, bearing both the ingenuity and inner contradictions of capitalism. Marxists therefore begin their examination with an overview of the history and dynamics of capitalist society.

Capitalism is a dynamic social system ever changing in form, but its laws of development have kept it essentially unchanged. Competition for profit drives changes in technology and determines what goods and services are produced. Forever crisis-prone because it chaotically produces for a guessed-at demand, capitalist economy alternates between periods of depression and recovery.

Throughout the history of capitalism, pragmatic pedants have repeatedly cited periods of recovery as proof of the system's inherent flexible strength, only to despair and whistle in the dark at the next crisis. The illusion of lasting flexibility appeared early when, despite periodic slumps, industrialization and working-class struggle raised living standards for masses of working people. The economic vigor of that long period between the late eighteenth and early nineteenth centuries fostered an abiding popular belief in capitalism's abiding ability to endure.

That heyday lasted as long as it did because between the crises the economy enjoyed a near balance between supply and demand. The century-long industrialization of factory and transportation construction, of population and city growth, generated a ceaseless demand for capital. But when the period peaked and the demand for capital slackened, the economy stumbled over a series of ever-deeper recessions, finally falling into the Great Depression of the 1930s. For capital circulates only when its supply is taken up by a robust demand, and that balance collapses in an inevitable succession of boom and bust. In boom times rising competition increases labor exploitation, retarding demand to bring on a bust. This contradiction, inherent in capitalism, bedevils it.

The history of the capitalist economy in the twentieth century

showed its potential for peril and consequent effects on government policies. Following the financial-market collapse in 1929, government measures to boost buying power in the 1930s restored a weak balance between supply and demand. As recovery progressed, however, the supply of capital quickly increased while demand lagged and the economy slumped again, to be saved by the onset of World War II. The colossal destruction of the war and the long costly rebuilding greatly increased the demand for capital, infusing new life into the system. A new military buildup in the 1950s, and the Korean, Vietnam, and Cold wars further raised both the supply and demand in the circulation of capital. In the 1970s, however, the circulation lost balance again. The hot wars ended, and the Cold War yielded diminishing returns. The swelled supply of capital within powerful corporate giants raised competitive pressures for big new market outlets. In the 1980s, continuing military building and government policies favoring the rich concentrated more wealth within monopoly corporations and shrank the buying power of the people. Growing imbalance between supply and demand always goads the dominant corporations to find ways to avert severe economic depressions and political crises. Driven by competition and fear of social unrest, they sought new ways to widen the market. They expanded geographically, penetrating the economies of other countries, or technologically, creating new demands for invented new products, or both. It shaped their whole life—their competitive strategies, alliances, political deals at home and abroad—and of late gave birth to “globalization.”

For more than one hundred and fifty years, Marxist theory has analyzed the development of capitalist society—through its industrial and finance-capital stages and the currently touted “globalization.” Throughout this history, capitalism has changed only the methods it uses to exploit labor and to amass and invest capital in order to exploit more, amass more, and invest more. It contrives new ways, seeking the most profitable under changed political, economic, and technological conditions. The essential characteristics and traits of capitalism do not change.

2. *The new in the old*

Early in the twentieth century, Marxist theory recognized in the developing imperialism of the industrially developing nations the roots of what is now trumpeted as a new epoch in history:

Finance capital, concentrated in a few hands and exercising a virtual monopoly, exacts enormous and ever-increasing profits from the floating of companies, issue of stock, state loans, etc., strengthens the domination of the financial oligarchy and levies tribute upon the whole of society for the benefit of monopolists. . . .

[However] monopolies, which have grown out of free competition, do not eliminate the latter, but exist above it and alongside it, and thereby give rise to a number of very acute, intense antagonisms, frictions and conflicts. (Lenin 1974, 232, 266)

Lenin then identified imperialism's defining characteristics, which fit like a glove the "globalization" of our time: "The export of capital as distinguished from the export of commodities acquires exceptional importance," and "the formation of international capitalist monopolies which share the world among themselves" (266). Lenin concluded:

Imperialism is capitalism at that stage of development at which the dominance of monopolies and finance capital is established; in which the export of capital has acquired pronounced importance. (Lenin, 266–67)

Accordingly, Marxists see "globalization" not as a new social order but as capitalism's continuing imperialism grown bigger and stronger, enabled by a versatile new technology and weakened political opposition to expand geographically and exploit more human labor and natural resources over most of the globe.

Indeed, as some Marxists point out, "capitalism has always been a global system. . . . The World's political economy is not more globalized than it was a hundred or a hundred and fifty years ago. . . . Multinational manufacturing firms appeared in the middle of the nineteenth century and were well established by the

beginning of the twentieth century. . . . Capital flows do not today influence economic development to the extent they did in the nineteenth century” (Tabb 1997, 24).

The historical origins and meaning of “globalization” thus identified, Marxist theory examines its dynamics in the present. Like the radical critics, Marxist analysts see in the 1970s economic stagnation a time of rising frustration and anxiety in finance-capital circles. The economy’s narrowing investment outlets, sharpening competition and dropping profit rates forced multinational corporations to “interpenetrate each other’s markets, and the cost of product development and faster product cycles led to pressure to market globally” (Tabb 1997, 25–26). To seek solutions and common advantages in accommodation, powerful corporations and their home governments formed regional trade blocs within which member states waived their sovereign rights to tax foreign imports. In theory, this change from trade between nations to trade between regions was to stimulate the stagnating world economy and forestall conflicts. In reality, it expanded the business of TNCs and generated competition between regional blocs (Palacios 1994, 26–27). Into this altered flow of world business relations, the TNCs have pulled the bulk of small and medium businesses of their home countries by virtue of their linkage within the business networks they control. Thus the bulk of national economies of the dominant capitalist countries get sucked in willy-nilly into the regional economic alliances.

This economic and political integration, led by the corporate giants and their home states, is a new development in capitalism’s imperialist stage. It has increased exploitation of labor and national resources at home by structural reorganization and negating concessions granted labor in the prosperous postwar decades, and by forcing poor developing countries to yield to their demands on pain of investment and credit withdrawal. Prodigious advances in communication technology have spurred its rapid growth.¹

Monopoly capital has therefore set the obliging media to foster a new reverence for the market, free trade, private enterprise, and capitalism as the ideal social system, pointing to the collapse of the European socialist states as proof that the alterna-

tive option was not viable (Palacios 1994, 38).² Finance capital's ideological attacks made the welfare state appear dated, its regulation of corporate action choking the economic initiatives of the market, its politicians naive, and its cost unaffordable (Teeples 1995, 3).

The collapse of the European socialist bloc opened new opportunities for finance capital to expand at the very time when it crucially needed expansion. Government military expenditures no longer held the bright business prospects of the past, raising the specter again of economic stagnation and political unrest. The opportunity to expand into East Europe took on the urgency of an escape from adversity and the lure of great profit in a new large part of the globe with big skilled labor and consumer markets. Thus finance capital took to asserting its power and moving government to cut social services, privatize public enterprise, and subsidize corporate domestic and global expansion.

3. Variety in the unity of Marxist analysis

Of all the analyses lavished on globalization, those of Marxists have been, arguably, the most comprehensive and profound. And yet Marxists vary in how they interpret its current course—partly, perhaps, because the still historically young occurrence is too erratic to reveal its trends clearly.

All Marxists see globalization as a logical offshoot of capitalism: its birth four or five centuries ago out of steam power, its growth by concentration of capital, new markets, and the expansion of the rich nations at the expense of the poor by competition or conquest (Magdoff 1992, 4). Most see it as a new phase, marked by the heightened ability to move capital over the globe at electronic speed and goods at the speed of jet planes, enabling the most powerful corporations to overwhelm the weaker ones with their agility to locate, control, and exploit profit sources with superior efficiency. Yet they stress that dominant ideology misleads public opinion in elevating “globalization” to a synonym for “world progress” and portraying the oppressive policies of the World Bank and the IMF as instruments of advance.

Some Marxists, however, dispute the idea that “globalization” accurately describes the present developments in the world economy. Hype overwhelms reality; some underlying assumptions of the “globalization” thesis are false and misleading. They question, first, the extent of internationalized production claimed as proof of globalization; data is available to refute this claim. Of the world’s industrial output reported in 1995, 65 percent was produced locally by home corporations, and only 15 percent was produced by branches of multinational corporations. Furthermore, industries move across national borders far less freely than globalization advocates have assumed. In 1993, for example, 78.9 percent of U.S. foreign industrial production was in advanced countries and most of the goods it produced in developing countries was for local consumption, not for export into the United States.³

This argues, they say, that the formulas offered up about “globalization” are simplistic, that explanations of current economic-political events in the world lie elsewhere. What is perceived as a basic economic change may be more an effect than a primary cause (Wood 1997c, 26).

This widely held view among Marxist analysts is challenged by an opposite extreme left view that paradoxically resembles the assumptions of the extreme right mainstream advocates of globalization. It holds that globalization has become the basic fact in the world’s economic, social, and political life, which is ruled by a powerful transnational ruling class. “Capitalism,” it states, “has become an integrated global economy based in large megacorporations . . . not tied to any particular national economy or national capitalist class . . . detached from any national base . . . guided and protected by the declarations of the World Bank and the IMF (Meisenhelder 1992, 267–71).

Marxist assessment of globalization is no doubt still in process of formation, but Marxist thinkers are of one mind in identifying transnational corporations as the main actors in its theater of operation.

4. *TNCs—The medium of globalization*

Responding to mounting inner pressures to expand, imperialist capitalism has been forced to invent new ways to widen its terrain of buying and selling. It contrived new technological means and plotted new political schemes to escape its inner contradictions. The transnational corporations (TNCs) of the richest capitalist countries are in the van of this push, commonly dubbed “globalization.” The TNCs have increasingly dominated the economy of the capitalist world, owning or controlling huge resources in vast areas of the globe.

TNCs grew out of nationally competing corporations that gathered economic power by defeating or taking over weaker corporations. They seized economic dominance in trade across the pried-open borders of states weakened by the Second World War. The resulting penetration of big capital from one industrially developed country into others has greatly increased world trade, strengthened the multinationally trading corporations, weakened the nationally operating corporations, and shifted the weight of economic competition to rivalry between globally growing giants.

The TNCs of defeated Germany and Japan sought to gain competitive strength through protectionist policies and financial aid from their states, now less burdened by military costs. They therefore grew faster than the U.S. rivals whose dominance they challenged. Thus the global competition between the world’s finance-capital TNCs polarized into three competing blocs around the United States, Europe, and Japan.

Heavily engaged in financial speculation, TNCs have become less concerned with the lower profit yields from production than with the higher profits gained from financial investment schemes worldwide. They readily sacrifice production for speculative financial investments when it suits their overall profit strategy. Their competitive struggle to dominate the world’s channels of credit produced the dominant corporate titans economically and politically powerful enough to dominate the social and natural resources of whole countries and hold at bay economic-political oppositions at home.

Marxists argue that the concentration of wealth and power in the finance-manipulating hands of the relatively small caste of TNC overlords makes the parasitic nature of capitalism most evident. TNCs trade heavily in national currencies and debt instruments on the international money markets, profiting more by gambling than by creating socially useful goods and services. Less than a fifth of worldwide exports of finance in the mid-nineties was for trade in goods and services; the remaining four-fifths was purely speculative financial transactions (Pha 1996, 23). At the peak of its power, for capitalism to shift the world's wealth from production to gambling, goes the Marxist argument, conclusively proves its social default and diminishing ability to maintain stewardship over society's production and progress (Meisenhelder 1992, 464).⁴

5. The nation-state and supranational governance

Most Marxists flatly deny the mainstream advocates' conjecture that the nation-states are in decline and that new global institutions to govern a new global society are emerging to supplant them (Knight 1989a, 330–32; Knight 1989b, 15–16, 33; Sassen 1991, 8–9, 329; Sassen 1994, 52). Historical evidence and current world politics, they say, belie that notion.

They take issue also with the radicals' view on the role nation-states play on the stage of globalization. The radicals, they say, failing to see globalization as merely a phase in the development of capitalism, also fail to see the role the nation-states continue to play during this phase. They fail to see that the change in state politics from social-welfare to monopoly welfare is a mere tactical change—a change the ruling class needs for its struggle with competing capitalist power blocs in the world of late-twentieth century—a tactical change the radicals mistake to be an abnegation of nation-state power in favor of global governance bodies.

Still, some Marxists on the extreme left hold that “transnationalized capital has outgrown the national state.” They claim that “the state, as a historical product of earlier stages of capitalism, is in demise.” Having become increasingly detached from its

national base, finance capital is creating a transnational governance network that dictates to nation-states policies on their economic, social, and political affairs to stabilize social relations and control working classes to assure profitability of their investments within their domain (Meisenhelder 1992, 269–72).

A more moderate minority view holds that capitalism has generated “economic trends which transcend national markets or states. . . . The growing importance of international economic processes eventually poses the need for supra-national political structures. Nation-States are thus threatened by a growing need for international political arrangements” (Bernabe 1997, 37).

Yet another view holds that having deregulated finance capital, nation-states have surrendered “to banks and other financial institutions and speculators what control they had over currency, interest-rates, investment, capital flows, balance of payments, foreign debt, and the stability and security of the financial system itself.” The sovereignty of nation-states having been thus overridden, “supra-national organizations—the World Bank, the IMF, and the World Trade Organizations—have [implemented] policies in accord with the interests of the big corporations.” Conflicts then arose within nation-states between the economic interests of national corporations operating primarily domestically and the interests of the transnational corporations profiting increasingly abroad. The significant feature of the globalization process is that the policies dictated by the World Bank, the IMF and the World Trade Organization—the governance setups of the TNCs—are being increasingly implemented by nation-states (Pha 1996, 23–25).

Most Marxist writers, however, hold that monopoly corporations in all countries had been integrated with their nation-states long before they began their rapid expansion abroad in the 1960s. Their more intense competition abroad in the wider arenas of rivalry and amid tensions among the leading capitalist states jockeying for positions of power made economic and political aid from nation-states indispensable. Failure to take this into account, they reason, has led to the mistaken notion that TNCs have no country. In fact, the formation of the world market and the

international trade agreements have taken place by the action of nation-states.⁵ But the demands of competition in the world market and the trade agreements they brought about have forced self-imposed limits upon nation-state policies. That only means, however, that as the scope of the market in the world economy widens, the scope of democracy within nation-state narrows. It does not mean the erosion of the nation-state (Magdoff 1992, 4).

What the evidence shows, in fact, is that the nation-states, working to control world trade, strive to discipline the competitive conduct of rivals. National corporations, moreover, maintain their national economic bases and political strategies. These are basic factors in capitalism, globalization beliefs to the contrary notwithstanding (Panitch 1994, 64).

In every country, capitalist economic development has included state aid and regulation of trade, with state subsidies for technological and infrastructural development of national industries, as well as tariff barriers against foreign competition. Never has export developed through free-trade agreements like NAFTA and GATT favoring some corporations but not necessarily the growth of the national economy (MacEwan 1994, 4–9).

Marxists deny the notion that the more globalization the lesser the role of the nation-state, for “whatever functions the state may be losing, it’s gaining new ones as the main conduit between capital and the global market” (Wood 1997c, 12). Indeed, today’s global order is a world of nation-states. Unlike in the colonial period when imperialist states expanded markets by military invasion of victim nations, today’s transnational corporations can penetrate the economies of other countries only through the media of national states. And every such penetration is matched by interimperialist rivalry in which the nation-state is principal agent (Wood 1997a, 28–29).

Marxists also deny the idea that as capitalism expands globally it necessarily gives rise to a global ruling class with a concern for harmonious functioning of the system worldwide. Such visions of a happy capitalist future also emerged in the wake of the two world wars, after the birth of the League of Nations and the United Nations, with weak or nonexistent factual

backing. While market expansion, they point out, has always required international cooperation, nations never ceased to compete and struggle for their own advantage by means both fair and foul (Magdoff 1992, 4–5).

In sum, beliefs that in the globalizing world economy nation-states lose power and become obsolete are unfounded. Despite deregulation, nations remain politically crucial supports to the competitive rivalries of TNCs, which, although they escape government restraints, need the national state to facilitate and secure their global investments.

6. Contradictions and failures of globalization

For the long-range trends of globally expanding finance capital, Marxists arrive at a dire prognosis. The contradictions inherent in its social system, they think, must sharpen and steadily drive it into a deepening crisis of global proportions—one of recessions, stagnation, rising unemployment, cultural degradation, violent eruptions, and continuing threats to world peace. Even in its seeming successes of recent years, global expansion has both preserved and undermined its social system in several ways.

The globally mobile TNCs have raised production, developed technology, and maximized profits. In the process, however, they have inevitably cut jobs, destroyed small industries, lowered wages and incomes, and thus raised supply more than demand. Economic recession down the road has become more likely (MacEwan 1994, 4–8).

Free trade within trade blocs has increased world production but also increasing economic competition and conflicts between blocs and enmity in the geopolitics of nation-states competing to expand control over larger markets, resources, and the politics of profit-promising world regions. It also increases rivalries and conflicts within the blocs as TNCs strive to keep their national markets safe against excessive penetration by allied TNCs. This renews trends to protectionist policies and trade wars.

The conflicts between nation-states that led to the world wars are emerging anew in the conflicts between and within global power blocs. Seemingly peaceable tactics, diplomacy, and media

cover-ups conceal a dogged struggle for markets and profits in which the competitors strain to do each other in (Panitch 1994, 60; Palacios 1994, 27).

Although the heightened mobility of finance capital and computerized remote control of investments increase corporate profits gained from production and trade, they also make it easy to profit by speculation and fraud. Public and private borrowing and spending have skyrocketed, leading to increasingly ingenious financial scheming and cunning by finance capital. An even more fragile web of speculation and gambling has been created, with possible catastrophic consequences to the world economy (Magdoff 1992, 19).

To surpass competition and invigorate markets, capitalist corporations have had to develop technology and improve production. On the other hand, they have acted to retain obsolete technology to maximize profits on investment and tried to keep advanced technology out of the reach of competitors. This conflicting speeding and impeding tend to heat up or stagnate markets and destabilize production. Globalization extends this contradiction and its effects to the entire globe.

Perhaps the most ominous contradiction of all lies in what globalization fails to do. It does not correct, but rather worsens, the economic imbalance between the rich and poor countries. It directs the flow of capital, technology, and knowledge to the rich-country markets and only trickles it to the poor. The imperialist foreign policies of the globalizing powers continue to draw off the wealth of formerly colonized countries by new cunning means. As a condition for credit, the World Bank and International Monetary Fund force these countries to dismantle their economic and social controls and open themselves to TNC penetration. The economic plight of these poor countries stems from the colonial period, when their economies were based on export of raw materials. They were left weak when the rich economies' imports shifted to products made mostly of artificial substitutes, thus favoring trade with other advanced countries (Pha 1996, 2). The TNCs use the poor countries mostly as sources of cheap assembly-line labor and as heavy borrowers of capital (Magdoff

1992, 32). Ethnic and national discords among the poor nations, provoked by their geopolitics, weaken their resistance. Thus over half of humanity, in Asia, Africa, and Latin America, kept poor, insecure, and hurting, grows angry and rebellious.

Marxists see nothing to suggest that globalizing capitalism can escape the crises its contradictions must surely produce.

7. Marxist analysis of globalization—Conclusions

In contrast to the limited historical perspectives crippling the mainstream advocates and radical critics of globalization, Marxist analysts probe deeper in tracing its historical roots and development, judging its political effects, and inferring its future. Marxist critique of these other interpretations highlights the differences among them.

The mainstream advocates, Marxists argue, depend on guesswork, faith, and the surface appearance of globalization. Their commitment to the capitalist system restricts what they look at, narrows what they see, and befogs what they try to make sense of. They trustfully celebrate the best of all possible worlds. They concern themselves purely with what is and how it is playing itself out, blindly confident that its proven flexibility will somehow pull it through problems it cannot foresee. They consider the economic and political components of globalization—corporations, cities, government, labor force, technology—but they miss seeing the class structure and class production relations underlying its development.

Perhaps the kindest thing Marxist analysts have said about the mainstream advocates' idea of a "new world order" emerging through globalization is that it is a fanciful wish for reform of an archaic, if enduring, social order. Early in the century, Marxist theory observed:

Bourgeois scholars and publicists usually come out in defense of imperialism in a somewhat veiled form; they obscure its complete domination and its deep-going roots, strive to push specific and secondary details into the forefront and do their very best to distract attention from

essentials by means of absolutely ridiculous schemes for “reform.” (Lenin 1974, 286)

The radical critics, on the other hand, present an erudite examination of globalization as a late phase in the history of capitalism after World War II, but they stop short of fully exploring its inner contradictions and their implications. Having eloquently vented their indignation, they seem content. Locked in their middle-class position, mistrusting both the titan classes on their left and right, they tend to lean toward the side whose winds blow the strongest at a given moment in history.

In the current post-Cold War period, Marxist analysts conclude, the radicals’ thinking is swayed by the premise that capitalism has become universal. The reasoning goes something like this:

The universal capitalism of the post-war world is dominated by liberal democracy and a democratic consumerism, and both of these have opened up whole new arenas of democratic opposition and struggle, which are much more diverse than the old class struggles. The implicit . . . conclusion is that these struggles can’t really be *against* capitalism, since it’s now so total that there really is no alternative—and it’s probably the best of all possible worlds anyway. So in this universal system of capitalism, there can be, can *only* be, lots of fragmented particular struggles within the interstices of capitalism. (Wood 1997a, 6–7)

Therefore, “only loose coalitions can form the ever-shifting majorities that can influence public life. Mutualism, localism, self-limitation and solidarity are the new public values of democratic practice” (Ehrenburg 1995, 460).

The idea of people’s struggle by “Lilliputian” strategy is a case in point—a strategy relying on sundry ad hoc movements but slighting the working class. The retreat of the working class before finance capital’s globalization blitzkrieg is taken as final defeat, and the radicals’ myopic view of history prevents their seeing its potential power and predictable counterattack.

How can the counterattack best be prepared for and mounted are the crucial questions in people's politics—questions for which radical critics have no effective answers. They can only propose a return to failed reforms: national governments should again channel public funds to cities and local communities, and the minimum wage should be raised to increase market demand for goods and jobs—that is, to return capitalism back to Keynesian welfare-state politics. Past policies were, however, products of specific past causes not reproducible in new historical conditions. Keynesian welfare-state reforms served capitalism in the prosperous labor-short years of wars and reconstruction. They ended in economic stagnation and the world crises of the 1970s, which in turn brought on the period of globalization. A narrow pragmatic interpretation of history precludes seeing that policies useful to the ruling class then do not apply in the present period.

Marxist views fundamentally differ from others by virtue of their unique orientation. Their identification with the working class and its perceived historical destiny to build a postcapitalist socialist society always drives them to examine the present in historical perspective, explaining current events in their rootedness in history and projecting their likely future effects. They affirm the soundness of their theory by pointing to its long record of consistent analysis of capitalist development. In 1848 Marx and Engels predicted the rise of globalization out of the dynamics of the capitalist system:

The bourgeoisie cannot exist without constantly revolutionising the instruments of production, and thereby the relations of production, and with them the whole relations of society. . . . Constant revolutionising of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones. . . . The need of a constantly expanding market for its products chases the bourgeoisie over the whole surface of the globe. It must nestle everywhere, settle everywhere, establish connections everywhere. (1976, 487)

Marxists of various factions concur in their analyses of globalization, attesting to the soundness of their method. One after another they strip fiction from facts and round out their meaning. Ellen Meiksens Wood argues that globalization is not a sudden change in the evolution of capitalist society. It gestated in its womb, as it were, waiting to be born. It denotes capitalism's reaching maturity fully dominant the world over. Its strategy and tactics are not essential to a globally integrated economy. They are policy choices adopted to serve capital in a capitalist global economic and political system (1997c, 30).

Throughout this century, another Marxist demonstrates, capitalism, elastic and adaptable, has survived and developed by expanding in spatial range and economic reach and by constantly inventing, making, and selling new goods. The scientific-technological revolution opened the whole world to the largest trade ever in new types of goods. Capitalism thus penetrated far and deep into the economies of all nations. Multinational corporations—the dominant form of modern finance capital—have been integrating the world economy mainly by exporting and manipulating the use of finance capital (Pha 1996, 21).

Globalization, another wrote, cannot end capitalism's economic stagnation, because its structural change from semi-automatic mass production to worldwide computerized just-in-time inventory production increases supply faster and faster while its impoverishment-spreading strategy decreases effective demand. Imbalance and instability in the economy remain. Capitalism's contradictions continue in its new setting (Hall 1997, 5).

Internationalization of economic life, still another Marxist points out, advances human progress but capitalist globalization perverts it. Capitalism's total command of the globe spreads its new contradictions to human relations all over the earth. The exploitation of poor countries by the rich countries and their rivalries for markets, spheres of investment, and technological supremacy portend new upheavals and crises (Cohen 1985, 11).

Globalization is, in fact, a contradictory process, likely to affect negatively the rich countries themselves. As it integrates national economies and develops cooperation across national

boundaries, it also increases friction and conflicts everywhere. The more capital penetrates national economies from the outside, the more it forces local capitalists to compete harder inside. And harder competition means sharper conflicts. Far from integrating, it generates disintegrating effects (Wood, 1997c, 27).

Nor is it as mobile, argues labor expert Richard D. Yates, as it is ballyhooed to be. Its ability to export jobs is limited. Some branches of production, construction, transportation, energy, utilities, food, and most services—in health, education, entertainment, maintenance, security—are not exportable. Even some manufacturing industries producing goods at the lowest unit costs in the world must stay put. Workers in all of them are a potentially organizable and politically challenging force. Despite capital's work-saving technology, labor's challenge remains ever a threat. Outsourcing and just-in-time inventory are vulnerable to even minor disruptions. A strike at one of a chain of linked subcontractors can choke the flow of parts and cripple the production of a big corporation. Computer technology opens plants to sabotage by even unorganized angered workers. Machinists, for example, have reprogrammed computer-controlled machines to slow them down. Unions can use the internet to organize internationally, or promote global boycotts, or collect information about a corporation's activities for use in bargaining (Yates 1997, 12).

Monitoring the effects of globalization on the lives of the world's people, Marxists have found it brought much suffering to every country. The high mobility of TNCs and their greater freedom to exploit have increased human and environmental destruction. Everywhere public-sector production and services are being privatized into the corporate fold. Everywhere globalization has made it more difficult for people to organize and press for their rights. Everywhere democracy is being pushed back (MacEwan 1994, 1–2). Under the guise of balancing budgets, governmental functions are turned over to corporate powers. The very concept of government responsibility for public welfare is being abolished. Legislative assaults on labor standards are becoming widespread as democracy declines and autocratic controls increase (Teple 1995, 4).

Marxists uniformly see globalization as debasing national cultures by encouraging speculation and gambling. Long ago Marxist theory recognized capitalism's extraordinary promotion of a caste of bondholders who "take no part in any enterprise whatever, whose profession is idleness. The export of capital, one of the most essential economic bases of imperialism . . . sets the seal of parasitism on the whole country" (Lenin 1974, 277). This parasitic bent, corrupting ideology, psychology, behavior, and political outlook, seduces many in the centers of corporate power.

The tendency to autocracy and corruption within the power centers of globalizing capitalism, Marxists observe, is reinforced by cunning international intrigues. Vying for advantage at each other's expense, the major capitalist powers fail to establish a stable world order that could sustain universal economic growth. The resulting imbalance continues to aggravate the system's contradictions. The conflicting interests of its rival powers cannot be settled in amity. The most powerful of them—the United States—seeks to restore its former postwar dominance over its rivals, who simultaneously strain for greater independence from superpower dictates (Magdoff 1992, 39).

Marxists expect globalization to continue pushing national politics to the right and breaking up the national alliances that helped the working class win reforms and concessions in the postwar decades. Since capitalism now mounts its inhumane attacks from global positions of power, they reason, people the world over must organize their defenses in global solidarity. Ultimately, the Newtonian law that every action produces an equal and opposite reaction will work in society as it does in physics. When the world's working classes will connect their economic plight, degradation, and environmental ruin with the nature of global capital, anger will build into action. Capitalism's global antipeople offensive will provoke a global people's counter-offensive (Yates 1997, 11–13).

The Marxists' prognosis for globalization is a somber one. The apparent successes of globalization cannot be welcomed, for they merely unleash globally the destructive impulses of the capitalist market and its inherent contradictions. What are touted as

booms are actually like hidden time bombs waiting to explode. Consider this. Having conquered the globe, capitalism has ended the spatial expansion that in the past saved it from choking from glut. Nor, given the omniscient atomic weaponry in the arsenals of the nations, can revival by world war be contemplated. Nor can constant invention of new kinds of goods be counted on to top modern electronic technology to boost global markets.

Capitalism has no escape routes left from its own inner dynamics; “it can only feed on itself, and . . . the more it maximizes profits . . . the more it devours its own human and natural substances” (Wood 1997a, 5, 8). What can save capitalism? With no way out of its inbred dilemmas, no more places to run, and no more time to wait it out, globalization may ensure that the next world crisis will bring capitalism to a global political dead end.

Pittsburgh

“Globalization: Part 1—Its Advocates” appeared in *Nature, Society, and Thought*, vol. 14, no. 3:269–84.

NOTES

1. The Marxist mathematician Dirk Struik observed that a type of science and technology emerges in history and rapidly advances in response to economic demand and social-economic crises. The discoveries, inventions, and rapid development in the sciences and technologies of electronics, cybernetics, communication, and transportation in response to needs in the war, postwar, and “globalization” years clearly confirms Struik’s observation (Olwell 1996, 15–16).

2. The media played the inevitability theme, blaming abstractions like *technology* and *globalization* for the industrial restructuring and downsizing that necessitate the neoliberal political agenda. The blame is thus deflected from finance capital to “natural” forces, deepening a sense of resignation and the conviction that challenging corporate power is futile (Henwood 1997, 30).

3. Wood (1997c, 24), citing Lipsey et al. 1995.

4. Meisenhelder points out that Marx, more than one hundred fifty years ago, perceived the corporation as “the socialization of capital within capitalism . . . [in which] capital ownership is separated from control over the process of production which becomes the purview of salaried managers.” He argued that the emergence of monopoly corporations results in a “financial aristocracy”

based on sales transactions of stocks on stock exchanges. His collaborator Engels noted “the increasing centrality of the stock exchange, and the concentration of economic power in the hands of financial ‘speculators’” (Meisenhelder 1992, 261–62).

5. This observation is confirmed by that conservative advocate of political dogma, the *Economist*, which declared that “the powerless state” in the global economy is simply “a myth,” and that the nation-states have “about as many economic powers as they ever had” (Myth of the Powerless State 1995, 15–16).

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BOOKS AND IDEAS

by Herbert Aptheker

Hayden's search

Tom Hayden has given an apt subtitle to his *Irish on the Inside: In Search of the Soul of Irish America* (New York: Verso, 2001). He calls one chapter "Growing Up Unconscious," and the book's theme is the author's discovery of the very rich radical tradition of Irish and Irish-American history. The book's conclusion is a good account of Hayden's "Going North"—that is, his visits to Ireland and his learning firsthand that tradition and its lasting reality.

The book is good enough to earn a scathing review in the *New York Review of Books*. It is refreshing to see that the very young radical who accompanied Staughton Lynd and me to North Vietnam in 1965 has not given up a basically radical view of today's society. The book is well written and deserves a wide readership.

A blow to Washington

Last spring Washington supported a right-wing coup against the democratically elected and slightly left Venezuelan government of Hugo Chavez. The militaristic leadership of the coup immediately abolished the judiciary, the legislature, and, in fact, the nation's constitution. The coup's abettor, Washington, was of course delighted, although the military leadership of the coup

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was crude enough to fail almost at once. The farce was completed when Washington warned the restored government to “respect the constitutional process”!

Every Latin American government denounced the coup and Washington was left with not only a failed usurpation but condemnation from its “friends,” who derided reaction’s crudity.

A rare pleasure

There are very few pleasures that accompany aging. One is certainly viewing accomplishments of offspring. I have had this in abundance. Another is outliving some odious contemporaries; their passing gives one satisfaction.

This was evoked by notice in the *New York Times* of 27 March 2002 of the death of Ernest Van den Haag, whose death was due to the “myriad attenuations of old age,” quoting William F. Buckley Jr., his comrade in the ranks of dismal reaction.

I once shared a platform with Van den Haag and was astonished at the absolutely unabashed hateful and reactionary nature of the person. Of course, with these attributes he held distinguished posts, such as the John M. Olin Professorship of Jurisprudence at Fordham. The *New York Times* notes that he strongly favored the death penalty, denounced desegregation, and thought laws banning child labor were ill-advised.

He left “no immediate survivors,” observes the *Times*, but Mr. Buckley is preparing an obituary for his *National Review*. Quite fitting.

An important book

An updated edition of Stephen F. Cohen’s *Failed Crusade: America and the Tragedy of Post-Communist Russia* has recently appeared (New York: Norton., 2001). The book is refreshing in its honest appraisal of present-day Russia, where “86% of Russians cannot afford medicine they need” (241). Cohen writes of “the impoverished majority of Russian citizens”; he notes that “the *New York Times* bureau chief reported that the hordes of homeless adults and children so evident in Moscow were not a ‘visible presence’” (263). In the summer of 1999 it was true, as a

local journal confessed, “that Russia is in the midst of a very deep systemic crisis encompassing all areas of Russian life—the economy, the polity, the social sphere” (317).

Few areas of the world are more important than the former Soviet Union. To get some comprehension of its reality, do examine Stephen F. Cohen’s *Failed Crusade*.

Hitlerism revived

An especially foul book, *The Death of the West: How Dying Populations and Immigrant Invasions Imperil Our Country and Civilization*, by Patrick J. Buchanan (New York: St. Martin’s Press, 2002), appeared on the *New York Times* best-seller list for several weeks. The author, who made possible the stealing of the presidency, is a disciple of the racist apologists for slavery and the filth enunciated by Hitler.

As with Van den Haag, it happens that I once had the misfortune of an encounter with Buchanan. This was, as I recall, in the 1960s, after I had returned from Vietnam. I was devoting myself to denouncing the U.S. role there and combating vicious assaults on Black people as the right-wing attempted to reverse the historic unanimous Supreme Court decision in *Brown v. Board of Education* (1954) that outlawed segregated public schools.

I had come to St. Louis at the invitation of a professor there and was to give several lectures while staying at his home. My coming had been widely publicized, especially by the *Globe-Democrat*, a fiercely racist and reactionary newspaper. Buchanan was a part owner of that paper, and greeted me with a photographer as I arrived. He began baiting me and I pushed past him. Quite a turmoil developed. He and his cameraman followed me to the home of the professor. A racist mob gathered outside, and I suggested to the professor and his wife that perhaps it would be best if I went to a motel. My hostess replied, “You are my guest and you will stay at our home.”

Buchanan and his cameraman followed me during my St. Louis visit. Perhaps the excitement this aroused increased the size of my audiences! So much for my personal encounter with Buchanan. It says something about the depths to which aspects of

U.S. life have sunk that this Buchanan has been made a significant public figure with a best-selling *Mein Kampf*.

Buchanan's vile screeds have been avidly consumed by thousands for their anti-Semitism and Hitlerism, always the tools of imperialism's final stage—which, if not defeated, spells the end of human civilization.

There is an excellent review essay on this by Philip A. Klinkner of Hamilton College in the 11 March 2002 *Nation*. Although I wish Klinkner had showed more explicitly Big Business's inspiration for Buchanan's propaganda, nevertheless his essay is an important analysis of the danger Buchanan's revived Hitlerism represents.

The State Department and mass murder

The murderous activity of Washington since the close of World War II has been documented by numerous releases of alarming documents. Now a further revelation has surfaced, which demonstrates U.S. intervention in the Angolan people's effort at liberation. This is due to the persistent efforts of Piero Gleijeses, a political science professor at Johns Hopkins. The documents finally released prove Washington's intervention in Angola undertaken with the connivance of the then-racist government of South Africa. Sworn testimony before congressional committees is shown to have been false. The intervention by Washington and South Africa, which cost thousands of lives, long predated the subsequent military efforts by Cuba to save the revolution. These documents prove that official congressional testimony at the time is false. They also *prove* the lying content of the memoirs of former Secretary of State Henry Kissinger. It is past time that this war criminal was brought to justice.

A significant confession

A very important book exposing the fiendish machinations of the Right in the United States after World War II is *Blinded by the Right: The Conscience of an Ex-Conservative* (New York: Crown, 2002). Its author is David Brock, who began as a talented reporter for the student paper at Berkeley. From there he went

to the *Wall Street Journal* and then to the *Washington Times*, owned by Sun Myung Moon. Then he became a fixture of the Right, publishing a notorious fabrication concerning Professor Anita Hill, whose courageous exposé of the character of Clarence Thomas almost killed his Supreme Court appointment. Brock's work on Hill received favorable notice from George F. Will and even the *New York Times*, let alone William F. Buckley Jr..

A turning point came for Brock when he attempted a full-length work on Hillary Clinton. It contained the usual exposés, but basically concluded that her intentions seem to have been positive and that, just possibly, she might be a fairly decent person.

The vindictive Right did not forgive this effort at honesty. The vicious and false attacks upon him clearly helped turn Brock to reexamine his career and to question the ardent support he had obtained from wealthy malicious fabricators.

Brock's *Blinded by the Right* is very important. It exposes the malicious essence of the Right, its ruthlessness and cruelty and evil practices. Opposing it is the meaning of patriotism.

Remember Yugoslavia?

With the dramatic upheavals in Afghanistan in recent years, earlier episodes concerning Yugoslavia may be forgotten. This is unfortunate, for the meaning of this background for present and future U.S. foreign policy is dramatic and urgent.

A splendid analysis of this complex subject is available from the able pen of Michael Parenti: *To Kill a Nation: The Attack on Yugoslavia* (New York: Verso, 2000). The author notes the problems involved in seeking an accurate and complete picture of the involved and controversial developments that took place in this part of the world. I believe that we have here a truthful account, under difficult circumstances, of current developments that are far from concluded. This book helps a reader make some sense of a history that is still unfolding.

2 June 2002

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ABSTRACTS

Pradip Baksi, “MEGA IV/31: Natural-Science Notes of Marx and Engels, 1877–1883”—Baksi summarizes this volume of the MEGA (complete Marx/Engels in their original languages).

Paulus Gerdes, “Origins of Geometrical Thought in Human Labor”—Gerdes finds the source of mathematics in the labor process. Out of the creation of artifacts like mats and baskets emerged aesthetic and other abstract concepts. This article is excerpted from the author's *Awakening of Geometrical Thought in Early Culture*, a new book from MEP Publications.

Patricia Pollock Brodsky, “The Power of Naming in the Post-unification Attack on the German Left”—After 1989, the new pan-German government determined to erase the history of the German Democratic Republic and its socialist vision, as well as all ties to the antifascist past. The author describes how the power of renaming streets, schools, and public institutions and monuments has been employed, against some popular resistance, to falsify the past.

Charles Reitz, “The Call to Concrete Thinking: Rediscovery of Ernest Manheim”—Manheim's early work in philosophy and social theory took up the challenge by Lukács in 1923 to develop a concrete paradigm for social research and action. In this task, Manheim was ahead of Heidegger and Marcuse.

Morris Zeitlin, “Globalization: Part 2—Its Radical and Marxist Critics”—Zeitlin argues that non-Marxist radicals underestimate the working class and mistakenly accept the inevitability of corporate globalization, while Marxists correctly identify the inner contradictions of globally expanding capitalism.

ABREGES

Pradip Baksi, «MEGA IV/31 : Notes à propos des sciences naturelles de Marx et Engels, 1877–1883» — Baksi résume ce volume du MEGA (oeuvres complètes de Marx et Engels dans leur langue originale).

Paulus Gerdes, «Les origines de la pensée géométrique dans le monde du travail» — Gerdes découvre la source des mathématiques dans le monde du travail. Des concepts esthétiques et d'autres idées abstraites se sont développés à partir de la création d'artefacts comme des nattes et des paniers. L'auteur a extrait cet article de *L'émergence de la pensée géométrique dans la culture ancienne culture*, un nouveau livre de MEP Publications.

Patricia Pollock Brodsky, «Le pouvoir d'attribuer des noms, dans les attaques contre la gauche allemande après la réunification» — Après 1989, le nouveau gouvernement de l'Allemagne unifiée s'est décidé à effacer l'histoire de la République Démocratique Allemande et sa vision socialiste, y compris l'ensemble de ses liens avec le passé antifasciste. L'auteur décrit comment l'attribution de nouveaux noms aux rues, aux écoles, aux institutions et aux monuments publics a été utilisée pour falsifier le passé, à l'encontre d'une certaine résistance populaire.

Charles Reitz, «L'appel à la pensée concrète : La redécouverte d'Ernest Manheim» — Les premières œuvres de Manheim en philosophie et théorie sociale ont relevé le défi de Lukács en 1923, de développer un paradigme concret pour la recherche et l'action sociales. Dans cette tâche Manheim était en avance par rapport à Heidegger et Marcuse.

Morris Zeitlin, «La mondialisation : Partie 2 — Ses critiques radicaux et marxiste» — Zeitlin argumente que les radicaux non marxistes sous-estiment la classe ouvrière, et se trompent en acceptant le caractère inévitable de la mondialisation des multinationales, alors que les marxistes identifient correctement les contradictions internes du capitalisme en pleine expansion.