



Titian, *Christ Crowned with Thorns*, 1576. Oil on canvas, 280 x 182 cm. Alte Pinakothek, Munich.

The Formal Characteristics of Second Nature (1974)

Alfred Sohn-Rethel

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Translator’s note: Alfred Sohn-Rethel (1899-1990) was a German philosopher and economist best remembered today for his book *Geistige und körperliche Arbeit* (first German edition 1970; translated as *Intellectual and Manual Labour* in 1978), in which he develops a theory of the origin of conceptual thought in the “real abstraction” of market exchange. “The Formal Characteristics of Second Nature” is taken from a 1974 anthology of texts on materialist aesthetics. This essay is notable for two reasons. First, it is a précis of the Marxist epistemology that Sohn-Rethel had developed since the 1920s. Second, it contains the author’s only published comments on visual art. Although Sohn-Rethel’s approach to real abstraction has attracted increasing attention from art theorists and art historians over the past decade, this essay has remained more or less unknown. —Daniel Spaulding

The social structure based on commodity production certainly has spatiotemporal reality and is a historical form. But of what does this reality consist? How strong or weak is it? What does it have to do with the earth, with plants and animals, with our own bodies—in short, with first nature, the nature that was here first and which still continues to exist?

Our society is an exchange relation, and thus, by virtue of its form, a functional nexus of separate units, all of which are independent from the others: private merchants, private usurers, private thieves, etc., who take notice of each other only because they live off the gain that the one extracts from the other. Marx defines the form of this social interaction as a “relation of reciprocal foreignness.” The act of exchange is objectively social, while the consciousness of those who exchange is the solipsistic subjectivity of every individual for him- or herself. It is only behind the backs of the exchangers that their activity is social; their goals are private. None of the actors involved can concern themselves, in the individual actions through which their unconscious society develops, with this society to which they all the same contribute. Otherwise their activity would not be an activity of exchange. We are thus as yet unable to answer the question of how socialization is nonetheless possible by way of exchange, given that from the standpoint of the exchangers it ought to be an impossibility. When Marx says that, from the standpoint of competition, everything appears inverted, it must be noted that the basic form of competition is, precisely, exchange. Because of the inevitable inversion of our consciousness within this society, consciousness of this inversion necessarily remains bound up with critique; practice necessarily requires theory. It is only

possible to harm oneself with a blade missing its handle, and so it is in the case of practice without theory.

How can we explain socialization by way of alienation? What is its causal principle? This is the question that governs all other social questions, and Marx's analysis of the commodity holds the key to the answer. The peculiarity of the act of exchange, in contrast to all other forms of human activity, lies in its precise separation from every actualization of first nature. When the exchange of commodities begins, the use of those commodities must be suspended so that it can begin again for someone else once the exchange has been concluded. "Use," here, refers to any kind of "material metabolism between human beings and nature" (Marx), whether in the labor process, that is in the production of things, or in personal consumption, or even in mere contemplation for pleasure. Use, in the most comprehensive sense of first nature—both inside and outside of us and our physical activity—is suspended for commodities for as long as they circulate. When a commodity is offered at a certain price, it is not only withdrawn from transformation by human activity; it is also taken to be excepted even from natural causality within its own body. An unchanging price consigns the commodity's physical constitution to a no less unchanging status. In the sphere of exchange, it is no longer nature but rather property that governs commodities. The time and space that commodities traverse in circulation are the abstract time and space of capital. This is the sphere of "second nature."

In Marx, the differentiation between first and second nature appears as the opposition of the "natural form" and the "value form" of commodities.¹ "Not an atom of matter enters into the objectivity of commodities as values [*Wertgegenständlichkeit*]; in this it is the direct opposite of the coarsely sensuous objectivity of commodities as physical objects."² The objectivity of value is "purely social." With commodity production, humanity's natural environment and social environment stand in precise disjunction to one another. The social context of exchange has a spatiotemporal, historical reality, but indeed only the purely social reality of second nature. Let us first of all establish the full term of its historical efficacy. Marx equates it with the presence of commodity production from its earliest beginnings: However long a series of periodic reproductions and preceding accumulations the capital functioning today may have passed through, it always preserves its original virginity. As long as the laws of exchange are observed in every single act of exchange—taken in isolation—the mode of appropriation can be completely revolutionized without in any way affecting the property rights which correspond to commodity production. The same rights remain in force both at the outset, when the product belongs to its producer, who, exchanging equivalent for equivalent, can enrich himself only by his own labor, and in the period of capitalism, when social wealth becomes to an ever-increasing degree the property of those who are in a position to appropriate the unpaid labor of others over and over again.³

¹ Karl Marx, *Capital: A Critique of Political Economy*, vol. 1, trans. Ben Fowkes (London: Penguin, 1990), 138.

² Ibid.

³ *Capital*, vol. 1, 733.

The formalism of exchange does not change over time; the formal characteristics of second nature remain essentially the same. What changes is the role that these characteristics play, the degree and the manner in which they dominate the social fabric and progressively come to penetrate to its very ground, in other words, to production and the potential exertion of human labor. What then changes, though without in the slightest violating the formal lawfulness of exchange “taken in isolation,” is the principle of equivalency, which shifts from a law of the parity of values to the law of the imparity of surplus value.

This result becomes inevitable from the moment there is a free sale, by the worker himself, of labor-power as a commodity. But it is also only from then onwards that commodity production is generalized and becomes the typical form of production; it is only from then onwards that every product is produced for sale from the outset and all wealth produced goes through the sphere of circulation. Only where wage labor is its basis does commodity production impose itself upon society as a whole; but it is also true that only there does it unfold all its hidden potentialities. To say that the intervention of wage labor adulterates commodity production is to say that commodity production must not develop if it is to remain unadulterated. To the extent that commodity production, in accordance with its own immanent laws, undergoes a further development into capitalist production, the property laws of commodity production must undergo a dialectical inversion so that they become laws of capitalist appropriation.⁴

The secret of the formal constancy of commodity exchange, taken in isolation, is the same as that of the origin of second nature. It requires the logical-historical explanation of its underlying abstraction. This explanation lies in the nature of the exchange process. “It is only by being exchanged that the products of labor acquire a socially uniform objectivity as values [*Wertgegenständlichkeit*], which is distinct from their sensuously varied objectivity as articles of utility.”⁵—“The process of exchange gives to the commodity which it has converted into money not its value but its specific value form.”⁶ The value form and the formal characteristics of second nature arise through a process of abstraction that is realized in the act of exchange. What underlies this is nothing other than the irreconcilability in either time or space of the activities of exchange and use, as varieties of human practice. An exchange can only ever be effected during a hiatus in the use of the exchanged objects. The abstraction from everything that pertains to use is both the precondition and result of the pure activity of exchange. Exchange is made possible by a positive negation of the use of commodities: the time that the transaction requires remains, for its entire duration, a time of the non-occurrence of the use of the given commodity. In this place and at this time, i.e. in the market, the entire empirical existence of commodities pertains not to the activity in which they are involved, but rather to the activity in which they are *not* involved, even though this activity of course has its place in the consciousness of the interested parties, or indeed has its place only in their consciousness—precisely in the consciousness of every individual for him- or herself. While the consciousness of those involved in exchange plays a role as their private consciousness,

⁴ Ibid., 733-734.

⁵ Ibid., 166.

⁶ Ibid., 184-85.

as their solipsistic, isolated subjectivity, their actions remain objectively social, though unconsciously abstract and non-empirical. What conceals the abstractness of their activity from those involved in exchange is precisely their consciousness. The sensuous perception of the empirical qualities of things through the eyes, the ears, the sense of touch, etc., “is a physical relation between physical things. As against this, the commodity form, and the value-relation of the products of labor within which it appears, have absolutely no connection with the physical nature of the commodity and the material [*dinglich*] relations arising out of this.”⁷ The abstractness of exchange thus applies to the activity and precisely not to the thoughts and consciousness of those involved. This abstractness corresponds to exchange, as a reality outside of consciousness, in that it is, so to speak, “only real.” The formal characteristics of this abstractness of exchange or of second nature are those of reality, insofar as it is within the same *single* reality that, notwithstanding every individual’s solipsistic, self-interested subjectivity, they in fact exist in common and in which alone the transfer of the ownership of commodities from one to another can merge into the unity of an act of exchange. It is precisely through the real character of abstraction that this “relation of reciprocal foreignness” and of the practical solipsism of antagonistic ownership interests functions as a vehicle of socialization.

This way of describing the “commodity form” and the “value abstraction” or the “value form” as pure exchange-abstraction and as the most distinctive result of the social process of exchange diverges in its mode of presentation, but not in its content, from that of Marx. The reason for the divergence is that it seemed necessary to begin by developing the formal phenomenon of real abstraction (which Marx was the first to discover) through its own separate analysis, and only then to raise the question of its practical functions and effects. Only in this way does it become evident that the real abstraction of exchange asserts itself in two entirely different ways: on the one hand, in the economic abstraction of value, and on the other hand in the conceptual and cognitive abstraction of thought. Because Marx from the outset links the real abstraction of commodity exchange to the abstraction of labor, that is, to “abstract human labor,” his analysis is to begin with grounded solely on an understanding of the economy of commodity production and is consequently aligned with the critique of the fundamental contradiction between capital and labor. The other effect, which leads to the emergence of a new form of thinking (and concomitantly to a new aesthetics), namely a mode of thought and knowledge grounded on non-empirical abstraction, remains in the shadows, although only this explains the split between intellectual and manual labor that is characteristic of commodity-producing societies. What Marx elucidates in his analysis of the commodity is the unconscious functioning of society by means of an indirect, purely functional commensuration, effected through commodity exchange, of the socially necessary labor time embodied in commodities. The exchange abstraction communicates itself to labor, though admittedly not directly, in its form as “living labor” in the production process. This abstraction relates only to labor’s role in the market, thus as “objectified, past, accumulated, dead” labor, given that its effect applies not to the generation but rather to the exchange-relation of commodities as finished goods, which in

⁷ Ibid., 165.

the moment of exchange can no longer be modified and serve only as bearers of value. Those involved in exchange are, to begin with, absolutely unaware of this effect:

The production of commodities must be fully developed before the scientific conviction emerges, from experience itself, that all the different kinds of private labor (which are carried on independently of each other, and yet, as spontaneously developed branches of the social division of labor, are in a situation of all-round dependence on each other) are continually being reduced to the quantitative proportions in which society requires them. The reason for this reduction is that in the midst of the accidental and ever-fluctuating exchange relations between the products, the labor time socially necessary to produce them asserts itself as a regulative law of nature. In the same way, the law of gravity asserts itself when a person's house collapses on top of him. The determination of the magnitude of value by labor time is therefore a secret hidden under the apparent movements in the relative values of commodities.⁸

Just before this, Marx writes:

Men do not therefore bring the products of their labor into relation with each other as values because they see these objects merely as the material integuments of homogeneous human labor. The reverse is true: by equating their different products to each other in exchange as values, they equate their different kind of labor as human labor. They do this without being aware of it [*Sie wissen das nicht, aber sie tun es*]. Value, therefore, does not have its description branded on its forehead...⁹

There is hence no doubt that the original motor of the social mechanism of abstraction is commodity exchange; from here, the non-empirical form-determination of second nature spreads into the most distant and subtle reaches of the human world of meaning. How, though, is real abstraction translated from the unconscious functionality of mere activity into a form of consciousness? How does real abstraction become thought-abstraction—by what means, at what stage of development, and on the basis of what social, economic, or political impetus? I have particularly addressed the question of developmental stages in my book *Intellectual and Manual Labor*, where I believe I have convincingly shown that the invention of coinage—which took place around 680 B.C.E on the Ionian side of the Greek Aegean—represents a crucial threshold:

The minted coin is the value form become visible. For here a natural material (gold, electrum, silver, copper, or whatever it may be) bears a stamp that indicates that is no longer destined for use but only for exchange, destined only to be a bearer of value... Here the former relation in which the value form of the commodity was subordinated to its natural form is inverted: the social value form avails itself of a determinate and particular natural form for its own functional ends...¹⁰

⁸ Ibid., 168.

⁹ Ibid., 166-67.

¹⁰ Alfred Sohn-Rethel, *Geistige und körperliche Arbeit. Zur Theorie der gesellschaftlichen Synthesis* (Frankfurt am Main: Suhrkamp, 1972), 95-96. [This version of the passage only appears in the 1972 edition of *Geistige und körperliche Arbeit*. It is not present in the currently available English

I am not alone in proposing an original historic connection between the development of money in the form of coinage and the emergence of Greek philosophy and mathematics—the “Greek Miracle,” as it has been called. George Thomson’s thoroughgoing historical investigations in his book *The First Philosophers*,¹¹ which is much indebted to Engels as well as to Marx, have made highly plausible the supposition that it is not by chance that abstract conceptual thought, throughout almost the entire Greek cultural world, followed hot on the heels of—or indeed in many places (for example in Kroton) directly coincided with—the establishment of coinage. Incidentally, Marx says much the same, in a general sense, when he notes that human beings only become aware of abstraction *post festum*, when the results of their blindly working actions confront them in finished form—but then in such a way that it has become impossible to understand where these forms originate from or how they have come to be. In lieu of longwinded theoretical disquisitions through which I could in any case only repeat the arguments of my book, another example may more clearly show the essence of the derivation of abstract thought from real abstraction. I quote from a description of the state of affairs that serves as our point of departure:

The issuing authority... guarantees the weight and quality of coins (whether of gold or silver) and is duty-bound to provide full replacement if a coin has lost in weight by the wear and tear of circulation. In this duty, the postulate of the material inalterability of the equivalent over an unlimited stretch of time is formally acknowledged and, as a social postulate, is manifestly differentiated from the empirical-physical qualities of the natural substance that serves as the material of money... Needless to say, this does not imply that the masters of the mint grasped the true nature of their creation and must have recognized the form-determination of the value of commodities and of the exchange abstraction... This does not change the fact, however, that anybody who carries coins in his pocket and understands their practical use must have very particular conceptual abstractions in his head, whether he is aware of it or not. For in effect he handles these coins as if they have an inalterable material reality... It is only when coins permit this sort of handling that they are of the kind that the market demands.¹²

The reader may for the moment disregard the concepts of philosophy—whether Greek or otherwise—and instead seek for oneself a description or concept that applies to the material out of which money is made. Clearly money must have a material, given that one can buy nothing with an idea. This material must moreover be real: it must exist in space and time; it must completely inhabit money’s body. But how can it be thought? No single substance amongst the “mob of commodities... which have played the role of the equivalent at one time

translation: Sohn-Rethel, *Intellectual and Manual Labour: A Critique of Epistemology*, trans. Martin Sohn-Rethel (Atlantic Highlands, NJ: Humanities Press, 1978).—Translator’s note.]

¹¹ George Derwent Thomson, *Studies in Ancient Greek Society*, vol. 2: *The First Philosophers* (London: Lawrence & Wishart, 1972).

¹² Sohn-Rethel, *Geistige und körperliche Arbeit* (1972 edition), 95–96. [Corresponding fragments of this passage can be found in: *Intellectual and Manual Labour* (1978), 59; the text was extensively revised between the two editions, however.—Translator’s note.]

or another”¹³ fulfills the specifications that are to distinguish the material of money from all others, specifically, the requirement that it should remain inalterable over *time*. Money must therefore be made out of a real material that does not and cannot coincide with any existing real material; it must consist of a material that does not exist in our sensuous experience. It is accordingly a mere concept, indeed a *pure* concept rather than an empirical one, a non-empirical abstraction that can be grasped only in the mental form of the concept. Nevertheless, what is thought by means of this concept is not a mere idea, but rather a spatiotemporal reality that stands in for every material and yet which is not itself material. What is more, no one who thinks this concept can say that he or she has constituted it out of the given of sensuous experience by gradual ascent from the particular to the general. Nobody constituted it at all; it is simply *there*, ready-made, without derivation or background. The abstraction from which it arises has occurred elsewhere and in a manner different from that of thinking.¹⁴ All that thinking adds is the effort to adequately identify the already given abstraction and to find a word with a fitting definition that makes it easier for others to retrace the steps of this identification. In fact words and definitions have here changed places; Parmenides hearkened back to Being and the One, naming his concept “τὸ εἶν” (*to eon*: “what is”), while Kant, like many others, names his concept “substance” and defines it as “the persistence of the real in time” whose “quantum is neither increased nor diminished in nature”¹⁵; matter only contributes to the substance’s empirical realization in the sense of natural raw material. The concept of substance falls, for Kant, under the *a priori* categories and thus cannot be derived from experience and is not sensuous—a fact that will be important for our reflections on a materialist aesthetics (which deals with sensuousness, specifically with art).

What we see from this example is, first, that the money-form, as institutionalized in the minting of coins, was required before the real abstraction of exchange and its various moments could impose itself upon consciousness, and second, that this “imposition” has its precise and unmysterious expression in the identification of the corresponding moment of real abstraction. For, given that the latter is nothing other than a purely formal abstraction, its identification can lead to no result other than a pure constitution of concepts. I consider “identification” to be a more appropriate description of this relation than the term “conceptual reflection,” which I used in my book; the latter recalls the indeterminacies of “mirroring” and moreover presupposes precisely the power of conceptualization that is at issue. It is only here that the power of conceptualization as well as its role as a recognizing “subject”—*logos, nous*,

¹³ Marx, *Capital*, vol. 1, 149-50; translation modified.

¹⁴ Many thinkers have expressed this in a variety of ways. Parmenides, for example, claims to have received illumination of his term for Being from Dike, the goddess of justice and therefore of truth, while Plato ascribes ideas to a recollection from an existence prior to the moment of birth which renders us mortal; for Kant, this notion takes the form of transcendental preformation. Expressed thus, this idea is not without a certain relationship to aesthetics, but it nonetheless refers to an origin that precedes the split between thinking comprehension and aesthetic-creative being-comprehended.

¹⁵ Immanuel Kant, *Critique of Pure Reason*, trans. Paul Guyer (Cambridge, New York, and Melbourne: Cambridge University Press, 1998), 275, 299 (A144, A182).

intellectus—arrive at their historical genesis, and if these terms pertain to the articulation of reflection, reflection itself would then serve not as a means of explanation, but rather as an object to be explained. Thirdly, this notion of identification erases all reference to an origin of the formed concept. The correct presentation of real abstraction in terms of identification emphasizes false consciousness. For indeed identification in the concept changes the historical character of real abstraction, turning it into a set of placeless and timeless forms of thought, the character of which wrenches non-empirical abstractions away from the sphere of what can be spatially and temporally located. Moreover, the social-synthetic function of real abstraction here changes into the logical-synthetic function of conceptual thought. This transformation on the one hand marks an unbridgeable separation of the form of thought that thereby emerges from all bodily labor and activity, including the artistic. On the other hand, it lends to this form of thought the concept of truth, in the sense of the philosophical concept of the truth-of-thought, as this first and most clearly emerges in Parmenides's definition of the *τὸ ἕκον*. The idea of truth emerges as a possession of false consciousness. And it is precisely in this guise of necessary and determinate alienation that the conceptual-logical mode of thought arising from developed commodity production fulfills an indispensable function as the universal socialization-form of thought, correlated to both the private character of independent commodity production as well as to the atomization of labor as the "labor of the isolated individual."¹⁶ For inasmuch as conceptual thought runs in the tracks of the logicized forms of real abstraction, it remains within the forms of abstraction to which the circulation of commodities owes its social-synthetic function. Granted, this socializing form of thought presents itself to the thinking individual as the logical power of his or her own *ego cogitans*—if we may at this point return to the epoch of private capitalism, in contrast to ancient plundered capital, which was still founded on the holdings of the polis. But in both cases the social character of this form of thought takes hold through the supra-personal objectivity and implacable reality of its epistemological content, in contrast to the experiential values of working individuals.

This model, according to which the transposition of real abstraction into the abstraction of thought can be reduced to direct identification, would seem to contradict Marx's claim that the abstract value-objectivity of a commodity can never be directly represented but is rather expressed only in its equivalence with the use value of another commodity. In fact, however, there is no need to contest Marx's claim, given that it relates only to the economic function of real abstraction in commodity exchange. It would require a separate analysis of the form-determination of value as opposed to the determination of its magnitude to show that form-determination, purely as such, that is without relation to any given determination of value through labor and thus without respect to any given "mode of appropriation" (cf. the citation of pages 733-34 of *Capital*, vol. 1, above), all the same finds its expression in the *intellectus purus* or "pure understanding."

¹⁶ Marx: "Labor which manifests itself in exchange value appears to be the labor of an isolated individual. It becomes social labor by assuming the form of its direct opposite, of abstract universal labor." *Marx-Engels Collected Works*, vol. 29, *A Contribution to the Critique of Political Economy* (London: Lawrence & Wishart, 2010), 275. This form is in fact the doubled one of the value form (and of the real abstraction that constitutes it) and the conceptual thought-form.

In modern philosophy, such as that of Locke and Kant, pure understanding is evaluated above all in terms of the power of the scientific and, especially for Kant, the mathematically-grounded knowledge of nature. The categories of second, purely social nature are thus brought to bear on first nature as concepts of knowledge. It is only on the basis of these categories that science, which is necessary to capitalism, becomes possible and can develop. If we wished to reach a judgment on this, the movement-schema of real abstraction would admittedly prove a more fruitful example than the concept of substance. Due to lack of space, however, it is here only possible to adduce the conceptual identification of this element in its finished shape. This schema describes the process of abstract (uniform) movement through abstract (homogeneous, continuous, empty) space, and similarly describes the abstract time of abstract substances that undergo no material transformation and which allow only quantitative differentiation. Because mathematical thinking originates from the same source, this movement-schema can be fully mathematized; Galileo indeed placed his concept of movement on the same logical level as that of Euclidean geometry. To be sure, Galilean science should not be explained away by its genesis in early capitalism. But the connection to aesthetics becomes clearer when the origin of the mathematical natural sciences can at least be shown in its crudest outlines.

The Galilean concept of gravity exhibits a number of differences from the movement-schema of the simple commodity abstraction. Given that movement was a formative factor throughout the entire development of art in early capitalism, this concept must be precisely understood. First of all, in Galileo's concept of gravity—which dominated the period from the late 16th to the early 18th century—abstract, non-empirical movement is methodologically posited as the absolute minimum and purely reductive element of any natural process whatsoever, but in a quasi-creative primary function that is wholly alienated and withdrawn from the sensuous experience that it transcends. Galileo reduces the natural processes of the world of experience to this movement by the composition of mathematical hypotheses which he then experimentally confirms or falsifies. Pure movement—I use this expression as an abbreviation, although I consistently understand it in the precise sense of the movement-schema of the exchange- and commodity-abstractions—is used in exact natural science in such a way that the experienceable phenomena of movement are replaced with hypothetical properties, through the combination of mathematical movements. All sensuousness is here excluded, thus dissolving the link to art. For Galileo, “nature is written in the characters of geometry.” Such was Galileo's bold formulation, which challenged and outraged his Aristotelian milieu.

The experiment does not bring back the sensuousness that had been excluded from the hypothesis, for it is nothing other than a measuring procedure. It is precisely tailored to the definition of a process of movement as given in the hypothesis (in experimental “isolation”); its purpose is to test conceptual abstraction against reality, thus to reduce sensuousness to calculated abstraction, rather than to sensualize abstraction. The experiment is an affair that plays out between the mathematics of the hypothesis and the data (the readings) of measuring instruments. The experimental test proceeds as an automatic process. The abstractions of mathematical-scientific thought are socializing forms of thought. This is the main insight that results from its formal-genetic derivation. These abstractions belong to the supra-individual dimension of social universality. They are the social correlate of

atomized labor that has lost its immediate social potency. Economically speaking, social potency migrated first to money and then from money to capital. In capital and capitalists, this potency becomes an interest—the hunt for profit, or materialism of the grimy sort. But this does not exhaust the function that the real abstraction of exchange plays in humanity's survival during the stages of unconscious society. Social real abstraction is here of the essence for humanity, and it is precisely in this that the interested consciousness of the capitalist has no part. He pockets his money without a concept. The philosopher seeks the hidden concept, but with a false consciousness of it, namely through the false medium of mere consciousness. Without having the slightest inkling of its real social nature, the scientist in turn uses this concept in a socially necessary manner: he solves physical problems (social tasks) with which the individual producer of a previous epoch could not cope. He makes use of the blind growth of the exchange abstraction, of its unconscious real character, which permits only what can be weighed and measured to impress itself on the senses, and which also knows how to find the real where it does not offer itself to the senses at all. The scientist investigates what can be experienced of first nature through the epistemological concepts of abstract second nature. He turns the knowledge of nature into intellectual labor that is separated from manual labor, thus making it available to the capitalist without the help of workers. The logic of his thought is, in accordance with its origin in commodity exchange, a logic of appropriation, not a logic of production; the latter could only be a logic of the social producers themselves, that is to say a logic of the unity of the mind and hand, as part of a classless society.

Aesthetic activity, though, places real abstraction in a direct relation to sensuous appearance and denies the actual separation of the head from the hand. Recall that: “The outstanding achievement of Hegel’s *Phänomenologie* and of its final outcome... is thus first that Hegel conceives the self-creation of man as a process [and] that he thus grasps the essence of labor and comprehends objective man—true, because real man—as the outcome of man’s own labor.”¹⁷ Labor can only be understood here as the full social unity of human mental labor and human manual labor, as the full social productive potential of the human being. In the developmental level of humanity that Engels called the stage of civilization, which encompasses the developmental stages of advanced commodity production, the social productive potential of the human being is split. Separated sociality takes on the alienated abstractness of a second nature, an incorporeal spirit, in contrast to the socially abandoned and no less alienated sensuousness of labor. Where artworks deny this split—and there are only a few that do—and thus give form to the unity of the dismembered, they “leave one speechless” (Benjamin). That artistic activity demands the inseparable cooperation of the artist’s head and hand is furthermore a self-evident precondition for the very possibility of art. The relation that, according to this view, circumscribes the realm of the aesthetic will become clearer if we examine the precise nature of Galileo’s concept of gravity in historical-materialist terms.

This concept has several characteristics that are not yet present in the simple movement schema of exchange abstraction. Among these are, first, the infinite continuation

¹⁷ Marx, *Economic and Philosophic Manuscripts of 1844*, trans. Martin Milligan, in *Marx and Engels Collected Works*, vol. 3 (London: Lawrence & Wishart, 2010), 332-333 (XXIII).

of movement, and second, the uniformity of movement, that is to say its linearity in space and its evenness in time.

The fourth chapter of Marx's *Capital*, on the "transformation of money into capital," makes clear where these characteristics come from. One could essentially quote the entire chapter here, or at least its first section on the "general formula of capital." I will only cite a few key sentences. The chapter begins:

The circulation of commodities is the starting-point of capital. The production of commodities and their circulation in its developed form, namely trade, form the historic presuppositions under which capital arises. World trade and the world market date from the sixteenth century, and from then on the modern history of capital starts to unfold.

If we disregard the material content of the circulation of commodities... and consider only the economic forms brought into being by this process, we find that its ultimate product is money. This ultimate product of commodity circulation is the first form of appearance of capital.

Historically speaking, capital invariably first confronts landed property in the form of money; in the form of monetary wealth, merchants' capital and usurers' capital.¹⁸

Elsewhere Marx numbers these among the "antediluvian forms of capital."¹⁹ In these forms, capital had wrested away the independence of its cities from feudalism beginning in the late 12th century; already in the 11th century the earliest Western European sea trade (with Byzantium and the Levant) had started in Venice, Genoa, Pisa, and Amalfi. The northwest European trade of the wool manufacturers of Flanders and northern Italy, in particular Florence, emerged in the 13th century, as well as the great money and commodity markets of Champagne and the great wool trade of the shepherding countries (England, Spain, Saxony, and France). In the 14th century large-scale merchant and finance capital reduced the spinners, weavers, dyers, etc., of Flanders and Florence, that is the bulk of artisanal and formerly independent individual producers, to a miserable mass of semi-proletarian subcontractors and domestic workers who briefly unsettled capitalist rule through violent uprisings in Ghent, in 1309,²⁰ and in Florence in 1378. The plague spread in the middle of the century, as did firearms at more or less the same time. A new class of craftspeople emerged which has been aptly called that of the "experimenting masters." Compared to the mass of impoverished artisans, they constituted only a tiny minority. In rich cities governed by bankers and merchants they took on the tasks of civil and military architecture, engineering and hydraulics, civic pomp and decoration—in short, all productive activities of a social character and scale. These craftspeople developed into the artists, technicians, and scientists of the pre- and early-capitalist epochs as they increasingly absorbed whatever could serve as a means of dominating nature from scholastic learning. This segment of the craftworking population

¹⁸ Marx, *Capital*, vol. 1, 247.

¹⁹ Marx, *Capital: A Critique of Political Economy*, vol. 3, trans. David Fernbach (London: Penguin, 1991), 728.

²⁰ Translator's note: Sohn-Rethel's dating may be mistaken here. Although there were notable uprisings in Ghent throughout the 14th century, there does not seem to have been a major one in 1309, specifically.

thus increased their capabilities and knowledge, and rose in status, while at the same time the mass of individual craftspeople in sank into both inner and outer impoverishment, becoming the wage-laboring proletariat of early capitalism. At the threshold of the transformation of money into capital in the 16th century to which Marx alerts us in his historical analysis, the split between capital and labor as well as between mental and manual labor had thus already been very sharply developed. Whereas Marx focuses on the former split, we will keep the latter in mind in what follows.

Marx distinguishes simple commodity circulation (commodity-money-commodity, or C-M-C), in which money only mediates the exchange of various commodities for the sake of their use, from the specifically capitalist circuit, M-C-M (money-commodity-money):

Money which describes the latter course in its movement is transformed into capital, becomes capital, and, from the point of view of its function, already is capital...

Both paths can be divided into the same two antithetical phases, C-M, sale, and M-C, purchase. In each phase the same material elements confront each other, namely a commodity and money, and the same economic *dramatis personae* [Charaktermasken], a buyer and a seller...

What however first and foremost distinguishes the two paths C-M-C and M-C-M from each other is the inverted order of succession of the two opposed phases of circulation... In the one case both the starting point and the terminating-point of the movement are commodities, *in the other they are money*.²¹

This is the first moment that is significant for the concept of inertial movement: “The path M-C-M... proceeds from the extreme of money and finally returns to that same extreme. Its driving and motivating force, its determining purpose, is therefore exchange value.”²² And indeed exchange value in increased form: not value, but surplus value.

Although Marx emphasizes that the form-determination of this circuit does not, in its first phase, “depend on the commodity’s being sold for more than was paid for it,”²³ money is indeed not spent simply to dispose of it once and for all, but rather for the sake of an increased return. Money in its role as capital is “thus only advanced,” although there is nothing about the money itself to show that it is now capital. In a photograph, so to speak, capital always looks just like money. The simple circuit C-M-C aims at the “satisfaction of certain needs.” “But in buying in order to sell, on the contrary, the beginning and ending are the same, money or exchange-value and this very fact makes the movement an endless one.”²⁴ This is the second moment in the concept of inertial movement. The measure and aim of the movement are not here set as external limits outside of it, as in simple commodity exchange, but are rather internal to the movement.

[T]he circulation of money as capital is an end in itself, for the valorization of value takes place only within this constantly renewed movement. The movement of capital is

²¹ Marx, *Capital*, vol. 1, 249. Italicization here and afterwards is mine.—S.R.

²² *Ibid.*, 250.

²³ *Ibid.*

²⁴ *Ibid.*, 252.

therefore *limitless*. [It has the] vocation... to approach, by quantitative increase, as near as possible to absolute wealth.

[I]n the circulation M-C-M both the money and the commodity function only as different modes of existence of value itself, the money as its general mode of existence, the commodity as its particular or, so to speak, *disguised mode*. It is constantly changing from one form into the other, without becoming lost in this movement; it thus becomes transformed into an *automatic subject*... In truth... *value* is here the subject of a process in which, while constantly assuming the form in turn of money and commodities, *it* changes its *own* magnitude... For the movement in the course of which it adds surplus-value is its *own movement*, its valorization is therefore self-valorization [*Selbstverwertung*]. By virtue of being value, it has acquired the occult ability to add value to itself.

As the dominant subject [*übergreifendes Subjekt*] of this process, in which it alternately assumes and loses the form of money and the form of commodities, but preserves and expands itself through all these changes, value requires above all *an independent form* by means of which its identity with itself may be asserted. Only in the shape of money does it possess this form... But money itself is only one of the two forms of value. Unless it takes the form of some commodity, it does not become capital. [To anticipate: there can thus be no abstract art here—SR.] There is here no antagonism... between the money and commodities...

... value suddenly presents itself as a *self-moving substance which passes through a process of its own* [*eine prozessierende, sich selbst bewegende Substanz*], and for which commodities and money are both mere forms.

... M-C-M seems admittedly to be a form peculiar to one kind of capital alone, merchants' capital. But industrial capital too is money which has been changed into commodities, and reconverted into more money by the sale of these commodities. Events [*Akte*] which take place outside the sphere of circulation, in the interval between buying and selling, do not affect the form of this movement. Lastly, in the case of interest-bearing capital, the circulation M-C-M' presents itself in abridged form, in its final result and without any intermediate stage, in a concise style, so to speak, as M-M', i.e. money which is worth more money, value which is greater than itself.²⁵

The movement that befell 16th century society like an invasion thus should be understood in terms of the specificity of industrial capital (to take up Marx's point): the contrast between merchant capital and industrial capital; the determination of the consistent identity of capital as self-valorizing value and abstract self-movement. In a quotation I have already provided above, Marx writes that "it is only from then onwards that... all wealth produced goes through the sphere of circulation." Once the labor force has been fully proletarianized and lacks any of the resources needed to produce a given product, the possibility of producing anything depends on capital using the market to bring together all of the product's components, uniting these with the labor power that it has bought with the wage. From here onwards all production occurs according to laws not of production itself, but rather of exchange, while exchange occurs not with the content of exchange but rather that of production. Henceforth

²⁵ Ibid., 252-53, 256-57.

the social life-process only takes place as the M-C-M circulation process, which Marx analyzed in its general form.

Thanks to the power of capital, all social life revolves in the movement of the market, just as Copernicus, Tycho Brahe, and Kepler saw the starry heavens circling the sun in the planetary orbits. But the core of every act of production that takes place under capital's dominion—its labor process—is likewise caught in the *same* movement that here takes possession of the physical context of production, technologically penetrating it by means of the new science. If uninterrupted by any revolution, this movement will drive production beyond all measure; today it threatens to overwhelm us.²⁶ How, though, is capital—this abstract value-objectivity that contains “not an atom of matter”—able to command the physical production of physical things? Not by itself contributing a productive function to the production process, but rather solely through the use of money as capital, that is to say through the purchase of the objective factors of production and human labor power needed for a specific production process. When brought together and unified in the proper manner under the command of the capitalist, the intended production process results. “The labor process is a process between things the capitalist has purchased, things which belong to him.”²⁷ Since the capitalist him- or herself does not contribute any productive factors to the process, from the standpoint of the capitalist this process must therefore function as something physically autonomous, as an automatic totality of movement. The automatism of production is a postulate that arises from capitalist relations of production, not from any particular technology. It is only through the fulfillment of this postulate that the capitalist becomes a “producer.” The transformation of merchant capital into productive capital, which took place around the middle of the 16th century and in some places even earlier, must therefore be accompanied by the development of a natural science—and also, as we shall see, an aesthetics—that corresponds to this postulate of automatism. Above, it was shown that the Galilean method in fact corresponds to this demand by virtue of its grounding in the concept of gravitational movement. Capital and the concept of gravitational movement share a common origin, however. Capital is the conceptual indication of the movement-schema of the exchange abstraction, in the form that corresponds to the function of money as capital. Galileo's method of mathematical induction, which is grounded in this identification, investigates individual natural phenomena on the basis of “laws” that present their unfolding as autonomous causal necessity. Insofar as nature is here taken as the “the being of things according to laws” (Kant), it is wholly subordinated to the manifold necessities of movement. That the capitalists of Galileo's era made only the slightest use of his science is due to the fact

²⁶ The discovery that it is in fact the same movement that rules the physics of the heavens and of the earth was one of the greatest revolutions of the 16th century. As Alexandre Koyré writes: “The fact... that modern physics has its source in the study of astronomical problems and has maintained this link throughout its entire history... implies the abandonment of the classical and medieval conception of the Cosmos... in which the different parts that compose it, namely Heaven and Earth, are subject to different laws—and its replacement by that of the Universe... unified by the identity of the fundamental laws that govern it...” Koyré, *Etudes d'histoire de la pensée scientifique* (Paris: Presses Universitaires de France, 1966), 177.

²⁷ Marx, *Capital*, vol. 1, 292.

that capitalist production was still at that time largely practiced as a handicraft, as manufacture, and furthermore that in the use of machinery, too, handicraft still served as an omnipresent stopgap for deficient automatization. It was only after the complete, or nearly complete, withdrawal of handicraft that the scientification of capitalist production made good on the postulate of automatism.

Endless and autonomous movement is the preeminent stylistic element that increasingly dominates every field of art in the 16th century. This is not the narrative movement that had already appeared most strongly in Masaccio, a century earlier, as the fulfillment of what had begun to take shape in Giotto; rather, formative movement here generates shape. The earliest signs are already unmistakable at the beginning of the century, in Raphael, for example; see his *Galatea* in the Farnesina in Rome, or the incomparable portrait of his beloved in the Barberini. It reaches its highest—I would like to say magical—perfection in certain works of Titian and Rembrandt. For me, standing above all the rest is Titian's *Crowning with Thorns* in the Alte Pinakothek in Munich, which is simply one of the greatest pictures ever painted. This is one of Titian's last works; he was already 97 or 98 years old at the time. In the catalog of the Pinakothek it is, or at any rate was in the past, described as an "unfinished work of Titian's old age." There is an anecdote about this painting, according to which Tintoretto, Titian's greatest student, came to him in his studio while this painting stood on the easel. Tintoretto is supposed to have fallen to his knees, moved to tears and reduced to incoherence. On seeing this Titian took the picture from the easel and gave it to Tintoretto. "Take it, Jacopo, let it be yours!" Whether this really happened and the picture accordingly entered into Tintoretto's possession at this time (which would lend the insensitive catalog entry a certain authority) can no longer be determined, that is, if the anecdote is even authentic. The aura of this work could well have shaken Tintoretto to the core, though, especially given that it derives from precisely the quality that he strove to emulate in his master and in which, in a sense, he even surpassed him, but without ever equaling him. The magic of this work lies in the fact that the color with which it is painted and the light that shines on its surface, thus literally its material, itself flows. This effect cannot be described, but only seen in contemplation of the original, although one is never quite certain with which organ one "sees" this painting. In any event, here we have a case in which Marx's description of value as "processing, self-moving substance" becomes literal truth. Titian himself was only able to accomplish this miracle because this version of the *Crowning with Thorns* was the third if not the fourth repetition of the same subject using the same composition that had occupied him at various stages of his career, such that in the end he must have mastered the technical and artistic challenges of the task like "God the Creator" himself. Incidentally, this comparison is not chosen arbitrarily. The entire age took it for granted that God created nature as an artwork. This is why artists were recommended to learn from nature: they studied the non-empirical proportions of the divine artwork. One can only begin to understand the compositional structure of Titian's painting by tracing the distances between certain points and lines, that is, not the relations between the figures, but rather their counterimages: the proportions between them, which can be grasped not by a seeing but only by a knowing eye. There are countless other pictures by Titian that approach this *Crowning with Thorns* (as compositions of formative motion), but none that equal it. It would be a worthwhile project for a materialist critic of art to determine when, in the sequence of Titian's

works, this principle of motion began to germinate and grow. Michelangelo, too, acknowledged that the non-empirical was the secret of his art. It was not his aim to paint objects or human beings as we see them, but rather as they must appear to the eye of God. And if asked for an example that manifests the essence of this formative movement with unmistakable clarity, we could name the *Last Judgment* in the Sistine Chapel, where the movement of Christ's arm at the top of the enormous fresco sets in motion the carrying out of the judgment—just as for Newton, incidentally, God's impetus is required to set in motion the autonomous mechanism of heaven and earth. In Rembrandt's work, too, are found numerous (one might almost say countless) examples of this configuration of *movement as substance* in art. The portrait of his brother in the Mauritshuis, The Hague, has made a greater impression on me than others.²⁸ And it is precisely in Rembrandt's compositions that the abovementioned principle of non-empirical spacing assumes preeminent significance. Here it is also worth emphasizing the infinite extension and openness of space in Rembrandt's great landscapes.

The choice of examples (better: mere references) is here entirely unsystematic, subjective, and arbitrary. One could just as easily mention works of architecture or sculpture; it just happens that I am personally most fond of painting. I also do not mean to restrict this account to the early capitalist constellation; I would rather extend it back to the pre-capitalist epoch as well, in particular to Dürer's work. There also exist more secretive and enigmatic masters such as Giorgione, Piero della Francesca, or Mantegna. But it would take too much time and space to deal with them properly. One also thinks immediately of Leonardo da Vinci's work, to which Pierre Duhem has devoted three volumes²⁹; regarding Brunelleschi's influence—and he is the first, the most innovative, and perhaps the most comprehensive of all the “experimenting masters,” a category of which he was also the creator—too much remains obscure and undocumented. But with Dürer, the essentials of what interests us have an almost demonstrative character. It was his declared aim to ground art—not just his own, but art in general—on a non-empirical canon of form which by its nature could stem from nothing other than the real abstraction of social synthesis, and which throughout the entire pre-capitalist epoch related to both art and the emerging natural sciences as a still unseparated, or inseparable, unity. One can say neither of Dürer, nor Leonardo, nor Piero, nor Fra Giocondo whether they belong to the development of art or of natural science. The development of the two had not yet separated. By contrast, Titian was a contemporary of Copernicus, Tartaglia, Cardano, Benedetti, and Ferrari, without taking any part in their work; the relation was similar between Rubens, Frans Hals, and Rembrandt, on the one side, and Simon Stevin on the other. The ground for the lack of separation between aesthetic and conceptual activity during the preceding period is precisely the pre-capitalist character of the earlier epoch, the fact that these figures belonged to a manual mode of production in which capital was still merchant capital, standing alongside production. The capitalist still bought his goods from

²⁸ Translator's note: The painting in question is now considered a *tronie* or figure study rather than a portrait of Rembrandt's brother Adriaen van Rijn. Its attribution to Rembrandt is uncertain.

²⁹ Translator's note: The reference is to the three volumes of Duhem's *Études sur Léonard de Vinci* (1906-13). Duhem was a French physicist, historian, and philosopher of science.

their producers, who may indeed have been indebted to him up to their necks and helplessly exposed to his exploitation, but who remained responsible for production as manual workers. Nonetheless, merchant capital in the cities possessed the dominant economic and political power. It set tasks for the experimenting masters to solve; it was their patron. Capital in all its forms, including merchant capital, is an *a priori* social power. The tasks that it generated in the “commercial revolution” of the 14th and 15th centuries were of a social character, thus definitively surpassing the limits of handicraft in its classic medieval form, which was based on the personal unity of head and hand in individual production. It thus set tasks that, thanks to their technological nature, could only be solved through the mobilization of the social powers of mathematics, although both the mobilization of these powers as well as their use still fell to artisans, or more precisely, to the bearers of direct and thus artisanal responsibility for production.

If we examine more closely the relation between Dürer’s artwork and his writings, it is easy to see that this relation corresponds quite precisely to the above description. The same is true of Brunelleschi, that is, nearly a hundred years earlier, as well as of Leonardo. A craftsman by parentage and apprenticeship, Dürer later acquired a literary and mathematical education from the circle of scholars around Willibald Pirckheimer, with whom he was closely associated. From them he learned Euclidean geometry, in other words a form of mathematics that is profoundly alienated from manual labor. What Dürer made of this mathematical knowledge in his *Underweysung der Messung* (treatise on measurement), his *Four Books of Human Proportion* (published posthumously), and his *Etliche Unterricht zu Befestigung der Stett, Schloss und Flecken* (his treatise on fortification), however—and all three texts are methodologically grounded entirely on mathematics, taken *more geometrico*, even if their modes and areas of application are completely different—is a craftsman’s mathematics, to put it in a way that emphasizes its full inner contradictoriness. The instrumentarium itself already deviates from learned geometry. It derives from a workshop tradition, namely that of the *Bauhütte* (the medieval builder’s workshop). His constructions are almost without exception approximate constructions (and in this, we should note, they are related to current Chinese practice, which is based on the unity of head and hand)³⁰ and are destined for a purpose that, as he says in the forward to the *Underweysung*, “may be of service not only to painters, but also to goldsmiths, sculptors, masons, carpenters, and all others who make use of measurement.” A little later he writes: “For all these things should and can be of use in the work. If not, you will trouble yourself in vain.” In the last part of the text he addresses the Delian problem of doubling a cube (= squaring the semicircle), remarking that: “Because this is a very useful art and of service to all workpeople, but is held by the scholars to be a great secret and mystery, I wish to bring it to light and teach how to do it. For

³⁰ Translator’s note: This somewhat obscure aside echoes a passage in *Intellectual and Manual Labor*. “It cannot, of course, be ruled out that in the long run the logic and method of science will alter as a result of socialist developments. But what is certain to change is the technology taken over from capitalism. And this change will not only be one of the machinery itself but also a change in the manner of producing it. Its construction will increasingly become the work of the direct producers rather than that of professional experts. We can see many examples of this change in China, particularly since the Cultural Revolution.” (*Intellectual and Manual Labour*, 184).

using this art [“art,” and not geometry or the like! – SR], one can cast cannon barrels and bells, enlarging and duplicating them as one likes, and yet maintaining their correct proportion and weight. By the same means one can enlarge casks, chests, volumes, wheels, rooms, images [statues – SR], and anything else. Every workman ought to take note of this, because this has never yet, I believe, been described in the German language.” Here we see how Dürer’s entire effort aims to append the increasingly indispensable and ambitious field of mathematics—necessary for the solving of technical and architectonic problems, especially of a military nature—to the craftsman’s skill, to absorb it into the craftsman’s art, or indeed to create a mathematics that makes it possible to maintain the craftsman’s unity of the head and the hand. In fact he failed in this attempt, on the one hand because his mathematics was far too demanding for the craftspeople for whom it was intended—the *Underweysung* is dedicated to “the young and those who have no one to faithfully instruct them”—notwithstanding Dürer’s didactic efforts; on the other hand because after Dürer, in the later 16th century, other mathematicians, particularly in Italy, aimed to incorporate this geometry (which incidentally also seems to have developed independently in the arsenals of Venice) into pure intellectual geometry. Dürer is still just barely on the pre-capitalist side of the threshold to early capitalism, and despite its excess of inner tension, Dürer’s world is still one of craftsmanship, still held tight in the categories of use value. The objects and bodies that appear in his pictures are still meant to be perceived in their phenomenal identity. The artist’s research and representational efforts still approach them as elements of first nature. They have not yet become the “disguised modes of existence” of value of which Marx speaks in his analysis of the capitalist circulation process.³¹ It is different with the works of early capitalist art. The entire world of appearance, which here finds itself caught in the flow of formative movement, in fact essentially only continues to serve as a metaphor. Walter Benjamin described the 17th century as the terrible century of allegory. Allegory however goes back to the 16th century, as Benjamin well knew, and indeed to Dürer.

Dürer became acquainted with the basic assumption that God created nature as an artwork during his first journey to Italy. “For truly there is art in nature—he who can extract it, has it.” Seen in the light of materialist art criticism, this theory means that in essence the divine dimensions and proportions, which the artist knows it is his goal to find and which leave him silent before nature when he approaches them, must be identified as second nature. They are the timeless, the universal, the absolute, and the impersonal, which the artist aims to fuse with sensuous experience, corporeal life, and the personally unique by means of artistic formation. The aim of generating the illusion of the sensuous becoming—one of second and first nature seems to me worth considering as a materialist description of the ideal of art that was valid for the epochs of pre-capitalism and early capitalism, and perhaps even into the 19th century.

This would in any case make comprehensible why it is that great artworks from vastly different eras and styles, that is, those that approach this becoming-one, make a similar impression on their beholders. Furthermore, this formula gives occasion to raise the question of the method used in this essay in the attempt to develop a materialist aesthetic. Because the Marxian analysis of the transformation of money into capital was here chosen as the point of

³¹ *Capital*, vol. 1, 255.

reference for my critical approach, we must reckon with a line of reasoning that says that all artworks of the capitalist era—all the more so the “greater” they are—should be seen as nothing more than fetishistic cult objects of capital, only fit to be shoved into the wastebasket of history once humanity has finally left capitalism behind, or perhaps even today, in order to rob capitalism of a possible justification for its continued existence. This could be dismissed, following the Brechtian scale of values, as vulgar Marxism or “vulgar murkism”³²; this does not however answer the question of the value of art for a materialist aesthetics, but only puts it on the agenda. It ought nonetheless to be asked why my quotations drawn from *Capital* provide such an excellent impetus for an aesthetics that Marx’s book does not remotely thematize. The reason is that Marx analyzes the real categories of money and capital and their corresponding modes of circulation exclusively from the side of form, in an economic analysis without economic content, so to speak. He analyzes capital without regard to its kind and degree of developments, and thus also without considering the determination of the volume of value or the relation of capital to labor. Furthermore, Marx’s formal analysis of capital and money only becomes fruitful for aesthetics because it is the substrate for my own formal analysis of value and money, that is, of the real abstraction of exchange and the formal characteristics of second nature. Without this, the relation of Marx’s analysis to social synthesis and the insight into the socializing character of the conceptual abstractions based on real abstraction would fall away. Capital as an economic power is indeed, like the commodity and money, a reifying form of social synthesis. The legitimate materialist level of connection to the aesthetic is hence social synthesis, with its formal characteristics, and it is only in this way that Marx’s formal analysis of capital can address artworks, or at least artworks from the relevant capitalist epochs. The formal characteristics of second nature may indeed find modes of expression other than that of economics—unconscious yet nonetheless conceptual or aesthetic forms of expression that have not a single concept or standard of measurement in common with economics. But the methodical evaluation of these forms—such as I have practiced in my previously mentioned book, in the case of the critique of knowledge (and of epistemology), and here in the case of aesthetic critique—is conditioned by the formal-genetic or logical-historical derivation of these other forms of expression: their derivation as identification-forms of real abstraction. There is no other way to produce a logical-historical context for the relation between social forms of being and determinate forms of consciousness. Without this derivation, the formal context itself appears as an unbridgeable gap. Reflection theory does not bridge this gap, either, but only indicates it. After 1905, Lenin made use of this theory to drive idealism out of the ranks of the party through a direct materialist counterattack. The theory of reflection was able to accomplish this task, but in the terms set by idealism itself, which it thus did not critically liquidate. If, by contrast, we ask which forms of bodily labor correspond to mental³³ products over the course of history, an idealistic interpretation cannot even be formulated, because the relation between mental and bodily activity is precisely one of social being and is thus from the outset a matter for the

³² Translator’s note: *Vulgärmurksismus*—the false cognate works well enough in English, but in German *Murks* actually means a botch or a bungle.

³³ Or “spiritual”: *geistig* (translator’s note).

historical-materialist understanding of these products. The philosophical or indeed idealistic confusions of a materialist reflection theory thus do not even arise. Instead, the Marxian distinction between essence and appearance, and between correct and inverted consciousness, can here be brought to a higher degree of critical validity.