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The Cultural Work of Architecture: Fixed and Social Capital at Fiat

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This truth is, that just as there cannot exist a class political economy, so too there cannot be founded a class aesthetic, art, or architecture, but only class criticism of the aesthetic, of art, of architecture, of the city itself.¹

Just under a decade after the two oil shocks of the 1970s, what was until then the single largest automobile manufacturing plant in Europe closed its doors. Only a few years later, the former Fiat factory in Lingotto, Turin reopened not as a manufacturer of commodities but as a cultural complex. Of course Fiat's decision to reinvest a significant portion of its capital into an ostensibly unproductive capital asset — a building that on the face of things produced nothing, and instead housed cultural objects, leisure activities, education facilities, and entrepreneurial startup space — was anything but a free gift back to the Piedmontese economy, of which they were fondly considered "La Mamma." Chairman Giovanni Agnelli reportedly owned nearly a quarter of the companies on the Milan stock exchange in the 1970s and with Fiat alone controlled 16.5 percent of Italy's industrial investment in research.² The board's response to overaccumulation during the recession was a combination of outsourcing, property development, and what Josh Whitford calls "guided growth."³ Understood as a historically specific economic strategy, Fiat's investment in culture alongside the then-new research and development facility elsewhere in the city and manufacturing expansion into the Italian South, Brazil, and India was a specific wager on how to extract future surplus value from a population that its own factories had until then organized as worker and non-worker. Its post-retrofit renominialization, known now simply as Fiat Works, is perhaps no accident, but instead an insistence on its postindustrial dynamism: Fiat Works.

Politically this essay's concern with Fiat's flagship factory will surely not strike most readers as fortuitous given Fiat's role as both an antagonist in and a setting for what in

the English-speaking world has come to be known as the birth of Italian Autonomous (and later Post-) Marxism. In fact what strikes me as necessary still, some forty years on, is precisely the relationship between the political economy of architecture in places like the Italian North and the emergence of two competing though in a strong sense mirror positions on the nature of the new economy: on one hand, a widespread enthusiasm at the level of macroeconomic policy in the cultural and creative content of what were then new ideas about the coming postindustrial society; and on the other, the political blowback against those same economic transformations which in more recent memory has been dubbed, thanks to Silvia Federici's critique of it, immaterial labor theory.⁴ The latter is but one of the many theoretical positions that would emerge out of the heated years preceding the factory conversion at Lingotto. And while the explanatory and rhetorical power of their theses on affect and rent in what they call Post-Fordism is not in question here, what strikes me as urgent is the need to consider earlier counter-tendencies in proletarian theory from which that more popular and influential one emerged: namely the aesthetically attuned insights into economics made available by the criticism of Marxist architectural historian Manfredo Tafuri on the one hand; and the split, on the other hand, precipitated between Mario Tronti and Antonio Negri with the publication of Tronti's 1966 *Operai e capitale* (*Workers and Capital*, much of which had already appeared in *Quaderni rossi* a few years earlier), in no small part because the recent shorthand "Italian theory" occludes the heterogeneity of what was arguably the most rigorous period of Marxist analysis in the postwar period. And the urgency of considering other directions in Italian Marxism in order to understand the kinds of cultural strategies developing at firms like Fiat is also not due to a nostalgia for a more militant period of struggle but is rather born out of a concern for a more politically attentive, and we might say older, materialism (hence the interest in architecture, buildings, urbanism, and the economics of fixed capital during the transition to intangible assets) than the one on offer by immaterial labor theory.

As a work of architecture, Renzo Piano's retrofit beginning in 1982 makes murky the distinction between avant-garde architecture in Italy during the previous two decades — a period characterized by experiments and hypotheses largely concerned with typologies of collective living and megastructural interventions by Superstudio, Archizoom, and the group known now as La Tendenza — and the physical needs of big industry. A discipline imagined in the postwar period as uniquely political in its capacity to make concrete modes of socialist belonging through strikingly modernist forms, architecture, and architectural theory had by the 1970s reached a widely recognized terminus point.

Manfredo Tafuri in *Architecture and Utopia*, perhaps his most famous book in the English-speaking world, insisted that the professional impasse was written in the stars because "the fate of capitalist society is not at all extraneous to architectural design."⁵ What it meant for the two to share a fate on Tafuri's account was that architects had

a defeated and yet critical “task” ahead of them: namely, the political function of architecture consisted in its capacity to put “the working class, as organized in its parties and unions, face to face with the highest levels achieved by the dynamics of capitalist development, and relating particular moments to general designs.”⁶ The “particular moments” of both the “working class” and “capitalist development,” here, are imagined at a much larger scale than their proximity in the factory, and so the modernist commitment to functional or figurative architectural forms of socialism such as collective housing or even the *casa del popolo* (house of the people) is made, at least from a political perspective, obsolete. Though it was inconceivable for architecture to distribute or make space for socialism, Tafuri nonetheless saw in its specific material qualities the capacity to make available a version of totality, or “general designs,” to a “working class” undergoing rapid transformation. Tafuri thus reestablishes the same critique of radical Viennese urbanism he had been developing in the radical journal *Contrapiano*, except that in the case of the Italian postwar North, class composition and urban forms of economic planning make architectural *interventions* virtually impossible. For the same reason, however, Tafuri recognized the indispensability of architecture to a working-class standpoint because of its capacity to distribute both an aesthetic and economic materialism. The “search for architectural alternatives” to capitalism, his final provocation insists, “is a contradiction in terms” not because architecture was no match for capitalism, but because architecture at that moment had become a constitutive moment in the urban plan “of the technician, of the organizer of building activity, and of the planner, within the compass of the new forms of capitalist development.”⁷

Though Tafuri’s critique of what he calls an architectural ideology and its corresponding operative criticism is often understood as a dismissal of neo-rationalism or apolitical formalism in architecture, his argument through the 1960s and 1970s had far more to do with what I will here explain is the architectural logic of capitalism than with a capitalist logic of architecture. The former had always been at work through what Tafuri called “the utopia of form” and architecture’s capacity to distribute both perspectives and people, but with the rise of Decision theory and the cybernetic revolution in economics, he imagined it had become a far more immediate impasse to something like a “radical antidesign.”⁸ In the cybernetic paradigm of economic development, Tafuri, wedding his criticism to leading design and planning theorist Horst Rittel’s, insisted that the old opposition between plan and value had fallen away, and in its wake was a model in which “the very structure of the plan...generates its systems of evaluation.”⁹ The idea advanced by Rittel and taken seriously here by Tafuri was that growth in the new economy would consist of a version of surplus value planned in advance by state and private enterprise, and that the consequences for working-class composition (and the architecture that would distribute it) would be transformative in unpredictable ways. The integration of architecture into building cycles, economic zoning, and long-term regional plans

signaled to Tafuri that the state and the private sector had signed a new accord putting architectural development at the core of its plans. Thus in Tafuri's account, the postindustrial phase of capitalist development required architecture's capacity to rationalize the distribution of different kinds of value (geometric, social, functional, and property values to name the most important).

Without question the most material of all the classically aesthetic orders — which is to say the most voluminous, heavy, and static form of art according to both Kant and Hegel — architecture will turn out not accidentally to accelerate a new phase of value-time necessary for postindustrialization. In Turin especially, Tafuri's particular attention to the overlap between urban planning and capitalist development takes the Fiat car company's economic and architectural activities as one and the same. Our purpose here is thus to reconsider Tafuri's claim that architecture sits at the core of postindustrial growth in relation to the other "Italian" position associated with immaterial labor theory, and to forward a modest hypothesis about what the capitalist world must look like for us to agree that there is something of an architectural logic to growth during the simultaneous dematerialization of the economy.

Fordism and Futurism; "Architecture or Revolution"

Fiat's wager on future economic development was an immediate response to an historic impasse in the Fordist paradigm of value creation. The board's decision to refunction its factory in Lingotto says as much about its own historical position within a politically hostile labor market — Fiat's other factories in Turin were of course key sites for labor struggles through the 1960s and 1970s and the historic center of Italian workerism called *operaismo* — as it does about what policy makers and industrial leaders imagined drove economic growth. Two such assumptions worth noting up front are first that intensifications of both the working day and the productive capacity of workers (relative surplus-value by another name) are not the only means in which to valorize capital, and second that a capital asset geared for cultural production and circulation is a sound resolution to a liquidity trap. Neither assumption was entirely new in the 1970s. What was particular, however, was the emergence of a set of macroeconomic commitments within technical discourses on value that sought to generalize the kinds of bets unfolding at Fiat (more on this below).

Italian manufacturers' relationship to the question of technology and progress, when Fiat-Lingotto initially gained notoriety earlier in the century, was framed by at least two factors. On one side, an increasingly attractive Fordist mode of production appeared capable of transitioning continental Europe's agrarian economy, then still only sparsely punctuated by city states, to a national labor market needed for mass production; and Futurism on the other side as an avant-garde ideology adequate to aestheticizing and universalizing Fordism. Taken as combatable modes of wedding material and labor together as an industrial force, Fordism and Futurism characterized the early stages of Fiat's dominance in the North and in the architectural imaginary

of twentieth-century modernism.

F.T. Marinetti's "Futurist Manifesto" in 1909 was not a little certain about the source of their modernity, or what they modestly understood as "the very first sunrise on earth."¹⁰ Fueled on "machine gun fire," the "new beauty" of speed put the automobile at the core of their engineered future. Museums, libraries, and cemeteries marked and maintained the slowness of the past. Only with "factories suspended from the clouds by the thread of their smoke" would the "great crowds agitated by work," on Marinetti's account, bring modernity to a pace acceptable to its aesthetic, liberating them not from but to work.¹¹ The romanticization of war and its aesthetic which we tend to associate with Futurism today only served half their project: the other took what would become the Fordist factory as the ground zero of a new society, of which war was only the loudest expression. Thirteen years later they would get Il Duce, the same year Giacomo Mattè Trucco finalized Fiat's plans for its flagship factory of the future. Within the decade, Mussolini would use Fiat's heavenly fortress to stage Italy's own take on the fascist factory rally, filmed and distributed for all Europe's modernists to eat up.

Upon returning from a tour of Detroit and Chicago at the cusp of World War I, Fiat owner and founder, V.G. Agnelli, commissioned company engineer, Mattè Trucco, to design the largest and most efficient industrial complex in Europe. Indeed for automobile manufacturing, Fiat-Lingotto came second only to Ford's River Rouge Complex in Michigan. The latter, finished in 1917 by Albert Kahn, translated Frederick Winslow Taylor's techniques for scientifically managing the division of manual labor into the assembly line for Ford's burgeoning empire. Each of the Lingotto's five floors was designated for a distinct phase of automobile manufacturing with raw materials entering at ground level; assembly, motor calibration, upholstery, and finishing from floors one through five, all tied together by the first helicoidal ramp in the world made from reinforced concrete; and a full kilometer long oval open-air test track on the roof. The Taylorist logic informing its layout was a direct response to a factory occupation of Fiat's older and more open plant in Turin by workers looking for syndicalist control of production in 1921. Sparked in no small part by Amadeo Bordiga and Antonio Gramsci's newly founded Italian Communist Party (PCI) in January of 1921, workers at the beginning of the decade, especially in the North, were encouraged as much from the left as from Mussolini's *Il Popolo d'Italia*. Mussolini's newly minted fascists called for social and economic reform and a nationalization program nearly indistinguishable from the platform developed by the PCI in Livorno, though as two theoretical positions on value and distribution, the two couldn't have had less in common.

Internally, Fiat workers then as in the 1960s and 1970s made no mistake about which flag to fly. Theirs was red throughout, unduly flanked outside by the black shirts of Italy's other radical wing. Agnelli's appointment to Mussolini's senate in 1923 effectively sealed the company's political future, however, and with it the interim

success of its ambitions for a monopoly in the region. Fiat's new factory, in other words, installed an organizational logic as much imported from Detroit as from the National Fascist Party's (PNF) Roman headquarters. Designed for an ideal division of optimized labor — a combination of cooperation for increased output and division for specialized assembly — Lingotto announced a future relation between labor and capital emblematic of advanced industrial production across the globe. And though the factory would outlive the PNF later in the century, one was unthinkable without the other in the 1920s.

That the Lingotto factory came to emblemize modernist architecture for both Reynier Banham and Le Corbusier, and a future coterminous with fascism for the Futurists at Capri and Mussolini himself, is because what makes it modern in both positions is a formalization of an economic promise in cultural terms. What for Banham is "the most nearly Futurist building ever built" arrives on the scene in the art world through Werner Graff's visualization of *de Stijl* reloaded in a 1922 issue of *G* where the Turin factory brackets a more militant declaration of Bauhaus outlook: "Uninfluenced by the methods of mechanical technology, the new and greater technology begins — the technology of tensions, invisible motions, action-at-a-distance, and speeds unimaginable now in 1922."¹² The promise of a technological future for Graff, as for Marinetti and Mussolini, expressed itself in the new Fiat factory through a building and workforce understood not as complimentary but as singular. Elementarism (a term introduced and canonized in *de Stijl* by the Russian constructivist, El Lissitzky) referred in the early modernist aesthetic as much to the rationalism of an architecture as to the technologization of the variable side of capital, which is to say human labor power itself. With newly available reinforced concrete and a technique of ribbing enabling a seamless spiral ramp to link floors one through five, Fiat-Lingotto materialized workflow not just through management but also in the building itself. The irony is that Mattè Trucco's layout was actually more rigid than flexible as a result of its concrete flow. The larger complex at Mirafiori resolved much of Lingotto's engineering flaws in 1937 (whose guest of honor during the opening ceremony was none other than Mussolini himself) by separating workers into discreet buildings while maintaining flow with assembly belts and subcontracting. Still, the North's largest employer became so by understanding the project of mass production as an architectural one first, and a management one second. The postindustrial promise half a century later would be that technology had finally liberated mankind from heavy lifting; the claim in its Fordist mode is that workers, given the right buildings, have finally become technological.

No one took the singularization of worker and machine more seriously in the 1920s than Le Corbusier. That three aerial shots of Fiat's Lingotto factory line the final page of *Towards a New Architecture*, as the visual equivalent of "architecture or revolution," should come as no surprise given the book's core conviction in a machinic modernity.¹³ If the progress of enlightenment had stalled at some point in the nineteenth century

for Le Corbusier, it wasn't because mechanization had come to organize most of social and political life, but rather that it hadn't organized it enough. Between the advancement of production, and what were for him dead styles of an architectural prehistory, lies the fundamental contradiction between the home and the factory, which his manifesto aimed to fix. His first order of business then was to make the house a "machine for living in."¹⁴ Industrialization meant for Le Corbusier that "everywhere can be seen machines which serve to produce something and produce it admirably, in a clean sort of way."¹⁵

Le Corbusier's admiration for the "clean sort of way" that modern industry produced things found its most advanced expression in Fiat's factory at Lingotto. In Italy, Fiat's Fordism and Futurism looked to Le Corbusier like a prefiguration of the problem of "architecture or revolution" in no small part because its maximization of the fixed part of capital in the production process and its mechanization of the variable part. Which is to say that Fiat's engineering feat at Lingotto supplied modernism, at least in Le Corbusier's parts of the world, with its aesthetic and economic synthesis. One could therefore say that in the 1920s, at least in the idiom of Le Corbusier's famous either/or, that Italy didn't need a revolution: just Fiat.

Fiat Works

If what is made available in narrating Fordism and Futurism together, though, is a sense of the aesthetic (and in this case architectural) imaginary at the heart of the more technical qualities of that historically specific logic of production — which is to say in more simple terms that art history and economic history are best read not separately but rather as two sides of the same historical process — then Fiat's factory conversion would mark much more than a diversification of the company's assets. What I will suggest now, in other words, is that the conversion of what was once the largest car factory in the world into Europe's largest cultural factory, in an architectural idiom associated with craftsmanship and a sympathy for regionalism, is nothing short of a *material* blueprint for the postindustrial commitment to immaterialization, intangibility, and weightlessness.¹⁶ Which is another way of putting Gail Day's recent claim that the architectural criticism Tafuri developed at the Istituto Universitario di Architettura di Venezia (IUAV) understood avant-garde negation in the postwar years "as wrapped up with capitalism's modern coming-to-being, its artistic innovations ultimately playing a role in social restructuring."¹⁷ Day's point, which is one she shares with Fredric Jameson in his earlier assessment of Tafuri's contribution to the history of dialectical criticism, is that Tafuri's patience in tracking the force of aesthetic negation in twentieth-century art tells us as much, if not more, about economic development and contradiction than economics itself. As I began to suggest above, this is due in no small part to Tafuri's intuition of a uniquely *architectural* logic of capitalist development; a distributive logic in which material and immaterial elements are brought to bear on the periodicity of space.

Piano's conversion of Fiat's Fordist factory is thus best understood up front as a conversion of its periodicity; a material reconfiguration of the aesthetics of Futurism in order to make space for an after to Fordism. In fact, Piano's earlier and still more famous Centre Pompidou in Paris with Richard Rogers paved the way for an expansion of the cultural sector into heavy industry (indeed, the façade of Pompidou prefigures this expansion), a project whose mandate, Piano explains, "was to find a different tool for making culture and information."¹⁸ Pompidou thus gave an early indication of how architecture would give physical shape to a process of extraction invested in the immateriality of culture and information. The idea there would be to externalize the infrastructure of the building: "utilities are positioned along the west façade and have been color-coded (blue for air, green for water, yellow for electricity, and red for the vertical air circulation systems)" and the "elevators and escalators have been placed upon the support structure, along the façade" in order to make the building's machinic qualities transparent.¹⁹ Pompidou — and in a qualitatively new fashion at Fiat Works a few years later — began working out the aesthetic of a cultural economy in which architecture appeared to do a kind of work while the people inside engaged in activities until then thought of as outside the realm of economic growth.

Pompidou's program to make the infrastructure of the building architectural, which effectively made the working elements of the structure transparent in order to thematize transparency more generally, was in fact the last (and not the first) in a sequence of Piano's work that began with his first three major projects in 1966-70. The first was his earlier firm's initial results in experiments with polyester, plastics, and transportable structures. His Mobile Structure for Sulphur Extraction in 1966 consisted of a steel tension structure that could be erected in a variety of configurations *in situ*, reinforced by a polyester wrap that protected the sulphur mine and machinery from the environment.²⁰ Studio Piano's 1967 Shell Structural System for the Fourteenth Milan Triennale used a similar steel infrastructure to support a transportable and multi-use glass fiber container that could house unlimited activities. And the third, the Italian Industry Pavilion at Expo 1970 in Osaka, Japan used the principles invented in the first two projects and rendered the steel and polyester structural elements into a mobile square where Italy's newest industrial products could be framed by the most forward looking product of them all: postindustrial architecture.

Pompidou is the fourth in a sequence of projects interested in making interior space light and flexible (the two terms most immediately associated with Piano's career more generally) eliminating the gap between façade and structure. The Fiat conversion is thus part of a new sequence, and is more accurately the sequel to what had then become the Building Workshop's first major retrofit at the Schlumberger factory in Paris, 1981-84. Schlumberger's specialization in electronic equipment was at the cutting edge of oil detection and extraction and had launched the company, by the end of the 1970s oil crisis, into what was quickly becoming the center of the economic universe: the energy sector. Schlumberger had, much like Fiat in Turin,

rid itself of a significant portion of its workforce — indeed, on a macroeconomic scale, it was precisely the substitution of oil for coal that had dramatically increased productivity and thus decreased the relative size of the workforce to the rate of output in the manufacturing sector — and so its eight-hectare lot that once housed both workers, industrial manufacturing, and management facilities needed to be reconfigured to accommodate the company's more capital-intensive future. This meant replacing the factory that sat in the center with a garden, and communal spaces for eating and meeting directly beneath and above it housed in a Teflon awning. All the remaining structural elements were left intact, such as trusses and purlins, and the new infrastructural elements were again color-coded based on concrete, fenestration, circulation, and air conditioning. And while outside the building is a landscape architecture that anticipates much of the corporate campus architecture of the next fifty years, the idea at Schlumberger is to “invade” the factory's interior space with the natural elements that form the communal exterior through the planned continuity in color schemes based on botanical seasons. Work time inside the factory, which more concretely is based on the geopolitical and global economic thirst for, and the capital deepening implied by oil, is framed architecturally as the time of natural seasons.

Still owned by Fiat, but financed jointly by Fiat's development company, SITECO, and the city of Turin, Piano's next factory conversion came in four stages starting in 1984, coming in at just over one billion U.S. dollars by the final stage in 2002. The division of labor at the new Fiat is no longer organized around the assembly of a material commodity but rather what is imagined to constitute the multifaceted activities of culture: an exhibition center, cinema, private gallery (funded and supplied by Agnelli's grandson), polytechnic university, concert halls, and a shopping center, all of which, according then to the *Architectural Review*, “constitute such a rich mix of enterprises for whom creativity is crucial that they should spark between them a lively and fertile entrepreneurial ecology.”²¹ Of course the fantasy here is that having space designated for social and cultural activities serve as a stimulus for innovation, and that innovation is a constitutive dimension of future economic development. That the husk of a Fordist factory can ground a value-creating set of activities, though not function as a site of production, however, is a wager on the logical relation between architecture as fixed capital and the accumulation of surplus value in whatever comes after Fordism.

At Fiat, in other words, it wouldn't be nature that drove the architectural imaginary of economic growth, but rather its cultural rhythms. And yet the distinction between the two, between an idea of economic time linked to nature and one linked to culture, would appear in Piano's architectural philosophy not as a contradiction at all, but rather as two sides of the same feature of architecture's unique facility with the “organic.”²² So while the heavy-handed landscaping seen at Schlumberger is more restrained at Lingotto, but nonetheless central to masking the new auxiliary spaces a multi-use

cultural center requires, what instead gets naturalized is what architectural and environmental critic Peter Buchanan calls the building's "primitive consciousness": for the first time, Piano wired the entire structure with smart systems monitoring human movement, external climate, and supplies, all of which is communicated to a "central nervous system."²³ Only this way can the various exhibitions and open spaces on the first and second floors energize the entrepreneurial spirit of its other "incubator units" housing new and small businesses in need of Fiat's bump. As each venture grows, plenty of premium space is available for lease on floors two and three. Higher up is a four-star hotel and departments of the Faculty of Science at the University of Turin. In the middle of Fiat's famous rooftop racetrack sits the helipad and globular conference space, and the sixth floor of the private Agnelli art collection housed in the Pinacoteca Giovanni and Marella Agnelli Gallery emerges to tie the economic limbs of the building down to its cultural spine. Twenty-five pieces ranging from Manet, Renoir, and Matisse to Picasso and, with appropriate historical irony, Italian Futurists Giacomo Balla and Gino Severini, sit in the "Scrigno" (or treasure chest). The collection itself is part of the Agnelli family's estimated fortune of over \$5 billion (USD).

Thus what began on the concourse level as a "fertile entrepreneurial ecology" where startups rubbed shoulders with the creative class — which is to say where the intense capital deepening embodied in the building's conversion has provided the costly means for *cultural* and *creative* production — has upon ascending through to the sixth floor become the opposite: the means of more speculative, managerial, and intangible forms of production in the larger and more expensive spaces approaching roof level are the very cultural objects for which the new factory has been designed to showcase. The fixed cultural assets emerge at the top of the factory where cars used to in order to shore up the admittedly less-valuable capital asset (the building itself) choreographing the Lingotto's workflow. The elasticity between the two forms of capital deepening — architectural on one end and art historical on the other — provides, to use the director's language, the organic composition of postindustrial production. What used to be the geographic center of class struggle in Italy had become by the mid-1980s the "nervous center" of Fiat's international division of labor.

It's also at about this time that Fiat began to diversify its investments and regional stronghold by becoming what we now know as the multi-sector behemoth Fiat Group. So far as workers in Turin were concerned, Fiat's expansion into property development and insurance meant the full-blown urban transformation of, and relation between, capital and labor. The closure of Lingotto, effectively Fiat's international headquarters for over half a century, came at the tail end, rather than at the beginning, of a twofold restructuring scheme. The first phase included breaking up the company effectively into a financial and property developer called Fiat Engineering and SITECO respectively, in addition to its more traditional role as automobile manufacturer. The second phase saw an internal reorganization of the production process itself: the

new Melfi plant in the southern province of Potenza finished in 1993, surrounded by twenty-two subcontractor plants, is emblematic of the new just-in-time strategy we've come to associate with post-Fordist production and is one of many Fiat plants opened globally after the crisis of the 1970s. Phase two was a strategy as much about flexibility as it was about the maximization of fixed capital in the form of robotics in the place of variable capital, i.e., workers.

Layoffs reached 23,000 in 1980 in Turin with productive capacity slowing to 60 percent.²⁴ Meanwhile, Fiat Engineering opened Central Research Fiat (CRF), one of the most ambitious R&D centers in Italy since Olivetti's experiments in the 1950s and 1960s. Where the latter sought to formalize and facilitate an "anti-industrial" "republic of the intellect," Fiat instead committed itself to organizing both immaterial and material forms of production across the space of the city.²⁵ Of course the argument here is not that Fiat is exceptional in its deployment of a new logic of accumulation. Certainly even in Italy its mobilization of capital away from the factory floor proper was facilitated and necessitated by the state through new taxation and financial laws, and the unfolding of a similar logic was visible elsewhere much earlier in the century.²⁶

The introduction of a financial regulator, CONSOB, in the early 1970s is one such example, but perhaps more relevant to the transformation of Fiat-Lingotto is the aftermath of what came to be known as Progetto 80 in 1969-70. Championed by Giorgio Ruffalo at the Ministry of Finance and Economic Planning, Progetto 80 consisted of urban planners, economists, civil servants, and business leaders planning a three-tiered program for future economic and urban development in Italy. Aiming to grow the northern economy by 1980, the program cohered first in the construction of a system of accounting policy changes; second, program budgeting and integrated planning; and third, the regionalization of integrated planning. Unsurprisingly, its "long term perspective" was one grounded not on an intensification of manufacturing exclusively, but instead a model of value creation choreographed by transformed urban relations.²⁷

Perhaps most relevant for the discussion here, Progetto 80 laid the policy necessary to change valuation protocols in the Civil Code for property holdings in 1974. Instead of the "historical cost principle" determining the value of capital assets in which a building's initial cost and value trend attached to its land use determined its long-term value depreciation (and thus to what value it would contribute to the production process), new provisions were put in place to address events that change the asset's economic nature, such as the conversion of a prototypical Fordist factory into a hub for culture. Debates about which method best represented the value of an asset had been raging for decades in the U.S. and U.K. in what is now known as the Cambridge Capital Controversy, or what Ian Steedman, Paul Sweezy, and others on the left called the value controversy — debates that if anything were about how fixed capital could be understood as value-producing in the newly developed science of econometrics

once it was understood as a commodity just like labor. By the 1970s, however, the International Accounting Standards Committee (IASC) sought to globally abandon the historical cost principle on company ledgers and auditing reports. Market value came to replace the law of devaluation, and buildings that would have otherwise been depleted of their congealed value got a new lease on life. With new property law comes a new narrative of property; and instead of a graveyard of dead capital, Fiat was able to expand the capacity of its capital assets to assume the uncanny appearance of workers themselves.

Social Capital and Its Organic Composition

A good part of the Italian left had already anticipated the kinds of transformations unfolding at Fiat at least a decade before the decision to close Lingotto. From the perspective of a Marxist analysis of the basic categories by which capitalism grows — namely the organic composition of capital in which the increase of constant capital (c) which is the capital invested in fixed assets like machinery and buildings, over variable capital (v) spent on labor power, or capital deepening in order to increase labor productivity, defines the general tendency of economic growth — the limit is a natural one, which is to say that it will develop internal to capitalist development, rather than external to it. At a certain point so little labor time is required to produce the same output that the class antagonism between proletariat and bourgeoisie becomes instead an antagonism between those with and those without employment. The organic composition of capital, in other words, has as much to do with economic growth as it does with the sustainability of social relations over economic time. The question then is not whether or not the logical limit to the Fordist value form had been reached by the 1970s (it had) but rather how best to characterize the strategic reactions that were swiftly remaking the shape of economic relations.

Clear already in 1963 to Mario Tronti was that while the traditional site of production in its factory form remained the dominant expression of working-class struggle, surplus value as the *sine qua non* of capitalist accumulation could not be explained or critiqued from the factory floor exclusively. That all of society had become a factory was actually, at least in Tronti's early analysis, a claim not just about the privatization of the city but about the socialization of capital and labor at a definite point of development in the organic composition of capital. On the question of whether or not the composition of capital over time takes more or less variable versus fixed capital (or value from labor as opposed to machines), Tronti adds that an increase in the fixed component always means a simultaneous increase in the "non-paid part of the social working day."²⁸ Tronti doesn't mean simply that unemployment rises as machines do more work but rather that the work done outside of the factory — namely, cultural, intellectual, and creative work, or social reproduction more broadly, including what by the end of the decade would be the most important oversight of all: gendered work — come to constitute more and more of the variable side of capital

once those lucky few with jobs show up to work.

Instead of an intensification of the paid part of the working day, which in Marx's terms would constitute an increase in relative surplus-value, or what we can call the Direct Sphere of Variable Capital (DSVC), Tronti's thesis about the social factory is premised on a claim about the intensification of human labor before it arrives on the labor market, or what we could call here the Indirect Sphere of Variable Capital (ISVC). Tronti's hypothesis that more and more surplus value comes from the reorganization of the ISVC, or "the social factory," is another way of highlighting the social history contained in the organic composition of capital, which is to say that both "v" and "c" and the ratio between the two are results of socially mediated conditions external to the factory at any given moment.

But the intensification of the ISVC brings with it immediate consequences too for the process by which the value embedded in fixed capital is produced, consumed, and valorized over the course of the total workday, in addition to the variable side of capital: "within this process of production," Tronti maintains, social capital "produces, reproduces, and accumulates new capital; it produces-reproduces and accumulates new labor-power" because "at this level the division between necessary labor and surplus-labor does not disappear at all: it is simply generalized, i.e., socialized in the total process of capitalist production."²⁹ So while one side of the organic composition of capital is intensified, the other follows suit by virtue of the social organization *outside* the factory required and implied by a high degree of capital deepening *inside* it. And the final twist to what appears first as a tautology is that the increased value produced in the ISVC is itself the result of form of capital deepening outside the factory in which large-scale capitalists begin investing in the urban means of social reproduction, about which Fiat knew plenty by the time they hired Piano to update their flagship factory.

Thus the transformations that would become both architecturally and politically explicit at Fiat in the following decade, and more generally associated with Post-Fordism during the 1970s through the 1990s — that is, postindustrialization and with it immaterial forms of production — had in Tronti's early estimation little to do with a return to rent or a fundamental breach in the capitalist value form. Rather, the economic and social transformations increasingly becoming paradigmatic during the most intense years of Italian ultra-leftist struggle were logical extensions of tendencies embedded in the most fundamental laws of capitalist accumulation, however misleading their initial appearances were for the traditional left. "Capitalists," Tronti continues, "know this well: the real generalization of the workers' conditions can introduce the appearance of its formal extinction."³⁰ Its formal extinction, however, only appears as a negative image in its organizational forms, which by 1966 across Europe was already breaking apart at the seams. Trade unions, parliamentary parties, and the like continued to take the identity of the working class as the beginning and end of socialism, but its function in the production and valorization of capital had

shifted from beneath its feet. “Because of this,” Tronti concludes, “when the working class politically refuses to become people, it does not close, but opens the most direct way to the socialist revolution,” in no small part due to the emergence of a new phase of value where the ISVC began making up for the shortfall in the DSV. ³¹ As we have already seen, however, the capitalist concern with the working class as such was both the cause and result of capital deepening inside the factory and urban planning outside.

Which is another way of saying that what Piano’s factory conversion made material was the particular architectural relay that would mediate direct and indirect spheres of variable capital in relation to a postindustrial materialism deeply concerned about the nature of value. The idea here, though, has been to read the architectural and aesthetic history of Fiat’s economic transformations in order to distinguish between the types of radical materialisms that would take shape around its factories. Piano’s cultural conversion didn’t merely figure a future growth model as a set of immaterial forms of labor, but instead materialized the architectural side of postindustrial work as the setting in which increasingly indistinguishable spheres of variable capital would get mediated into value. The so-called shift into cognitive, creative, affective, or broadly named immaterial forms of labor, in other words, seems to address only half the picture of postwar political economy. As capital assets, the architecture of Fiat not only coordinates and leverages, but also assumes an active role in the transformation of cultural activities into value, just like its shored-up value in urban fixed capital has as its aim the coordination of the unpaid part of the workday. Thus to the extent that any viable movement of proletariat force is finally able to abolish “the present state of things,” the *state of things* in the age of immaterial assets will remain a very material concern, which is to say that the so-called immaterial, financial, or creative economy never eliminated, but rather intensified, the capacity of architecture to work and for work to congeal in architecture. ³² Piano’s most recent commission for the Stavros Niarchos Cultural Center touted as the “rebirth of Athens” — i.e., the ground zero of late capitalist austerity and ultra-leftist confrontation — should therefore surprise no one when it imagines culture as the bailout package for which we have all been waiting.

Notes

1. Manfredo Tafuri, *Architecture and Utopia* (Cambridge: MIT P, 1976).
2. See John Tagliabue, "Giovanni Tagliabue, Fiat Patriarch and a Force in Italy, Dies at 81," *New York Times* (25 January 2003) <<http://www.nytimes.com/2003/01/25/business/giovanni-agnelli-fiat-patriarch-and-a-force-in-italy-dies-at-81.html?pagewanted=all&src=pm>>, and Luca Ciferri, "Agnelli — The Uncrowned Monarch of the Italian Motor Industry," *Automotive New Europe* <<http://www.autonews.com/files/euroauto/inductees/agnelli.htm>>.
3. Josh Whitford and Aldo Enrietti, "Surviving the Fall of a King: The Regional Institutional Implications of Crisis at Fiat Auto," *International Journal of Urban and Regional Research* 29.4 (December 2005) 771-95.
4. Maurizio Lazzarato's influential essay on "Immaterial Labor" from 1996 usually stands in as the most developed expression of the theory, but I have in mind the even more recent collection on *Crisis in the Global Economy* put out by the UniNomade network on *Semiotext(e)* in which "financialization," "biopower," "cognitive capitalism," "the becoming-rent of profit," and the "new affective enclosures" are all deployed diagnostically to describe, in no uncertain terms, what in Carlo Vercellone's contribution is called "the crisis of the law of labor time-value." The position I am favoring in this paper is not one that understands Post-Fordist capitalism as a break in the long view of capitalism's internal laws, as in the case of the UniNomade position, which is not to say that their work (and Vercellone's in particular) is not endlessly insightful and indispensable to political organizing after 2008.
5. Tafuri, *Utopia*, 179.
6. *Utopia* 172.
7. *Utopia* 182.
8. *Utopia* 179.
9. *Utopia* 175.
10. F.T. Marinetti, "The Futurist Manifesto" <<http://vserver1.cscs.lsa.umich.edu/~crshalizi/T4PM/futurist-manifesto.html>>.
11. Marinetti, "Futurist."
12. Reyner Banham, *Theory and Design in the First Machine Age* (New York: Praeger, 1960) 193.
13. Le Corbusier, *Towards a New Architecture*, trans. Frederick Etchells (BN Publishing, 2008 [1923]) 289.
14. Le Corbusier, *New Architecture* 107.
15. *New Architecture* 277.
16. The two best examples of recent architectural criticism to isolate building craftsmanship and critical regionalism are Hal Foster's chapter on "Light Modernity" in *The Art-Architecture Complex* (London: Verso, 2011) 52-70, and Kenneth Frampton's chapter "Towards a Critical Regionalism: Six Points for an Architecture of Resistance" in *Postmodern Culture*, ed. Hal Foster (Port Townsend: Bay P, 1983) 16-30.
17. Gail Day, *Dialectical Passions* (New York: Columbia UP, 2012) 80.
18. Renzo Piano, *Pezzo per pezzo* (Rome: Casa del libro editrice, 1982) 23.
19. Fondazione Renzo Piano <<http://www.fondazione-renzo-piano.org/project/83/centre-georges-pompidou/genesis/>>.
20. Peter Buchanan, *Renzo Piano Building Workshop Complete Works, Volume One* (London: Phaidon, 1993) 46.
21. "Reviving Lingotto — Mixed Development, Turin, Italy," *Architectural Review* (November 1996).
22. Peter Buchanan, "Further Dimensions of the Organic: The Continuing Evolution of a Natural

- Architecture,” *Renzo Piano Building Workshop Complete Works, Volume Two* (London: Phaidon, 1995) 6.
23. Buchanan, “Further Dimensions” 158
 24. Whitford and Enrietti, “Surviving” 782.
 25. Manfredo Tafuri, *History of Italian Architecture, 1944-1979* (Cambridge: MIT P, 1989) 37.
 26. Pier Vittorio Aureli’s recent analysis in Log 23 (Fall 2011) of Cedric Price’s 1966 plans for the Potteries Thinkbelt in North Staffordshire, England suggests one such predecessor to the architecture of intangible assets.
 27. “Progetto ’80: A Project for the Renewal of the Italian Society,” *Planning Studies Centre* (8 April 2012) <<http://www.planningstudies.org/research/progetto80/index.htm>>.
 28. Mario Tronti, “Social Capital” *Telos* 17 (1973) is a translated reprint from the original chapter in *Operai e capitale*, 1966, which first appeared separately in the Marxist journal *Quaderni Rossi* in 1963. Future reference will be to the online version, “Social Capital” found here: <<http://zerowork.org/TrontiSocialCapital.htm>>.
 29. Tronti, “Social Capital.”
 30. “Social Capital.”
 31. “Social Capital.”
 32. Karl Marx, *The German Ideology*. <<http://www.marxists.org/archive/marx/works/1845/german-ideology/cho1a.htm>>.