When F.T. Marinetti published “The Founding and Manifesto of Futurism” in 1909, the link between internal mind and external expression had already found its way into European artistic consciousness. In the decades bracketing World War I, the written word and the painted image were becoming tools of psychological and perceptual expression instead of strict mirrors. A portion of this new artistic development was due to the increasing urbanization of European life. But, as Marinetti believed, architecture as an art had failed to develop to the point that it reflected modern sensibilities, and thus the cities of modern Europe remained lodged in the past. For the Futurists, many aspects of contemporary architecture were contemptible for their nostalgia and fascination with the picturesque and the natural, such as the canals of “passéist” Venice and the art nouveau style flourishing in Paris.

Because of its distaste for all things traditional, the Futurist movement visualized its ideal metropolis as a direct projection of its desire for universal dynamism and the obliteration of history. In order to accomplish this, it required a theory of architecture that visualized the city as the concrete expression of the Futurists’ mindset. The document codifying this architecture was published in 1914 as “The Manifesto of Futurist Architecture,” and in it, Marinetti and Antonio Sant’Elia proclaimed an architecture that would create “our cities, which ought to be the direct and faithful projections of ourselves” (Sant’Elia and Marinetti, 2). The products of this theory, in the form of Sant’Elia’s drawings, exhibit a preoccupation with “negative urban space.” This is a term adopted from art practice that refers to spaces (e.g. streets, alleys, passageways) defined by being between the boundaries of contained spaces; negative spaces do not have walls of their own.

Metropolis presents a vision of a future metropolis that we can see as Futurist in appearance and character. But for any Futurist archetypes it may contain, Lang’s future city also embeds a critique of the Futurist concern for negative urban space. In Lang’s film, negative space is both the result and manufacturer of the oppression of the working class. The perpetual state of being in an emptiness, an in-between space, is an expression of the alienation and isolation produced by the modern metropolis the Futurist wanted to perfect.

Casey Riffel

The City as Avatar

For the Futurist movement, the prototypical city was the quintessential backdrop of the quintessentially modern life. But the nostalgia for the incorporation of the natural into the urban
was completely absent from Futurist design. As Tisdall and Bozzolla point out, “the city had . . . replaced the landscape as the setting for the excitement of modern life” (Tisdall, 1978, 121). From this city, the Futurists dreamed of extracting all natural or picturesque elements. In his manifesto “Against Past-Loving Venice,” Marinetti pleads that the “Grand Canals, widened and dredged, must become a great commercial port” (Marinetti, 1991, 64). Much of Venice’s despised romance derived from the presence of the ubiquitous canals; they were Venice’s metonymic face. Marinetti’s great port imagined “wide roads built over canals that have finally been filled in” (Marinetti, 1991, 64).

Take, for example, Balla’s *Street Lamp* [1] which takes a literal approach to Marinetti’s rhetorical cry, “Let’s murder the moonshine!” The lamp swells to occupy the frame, dominating the backgrounded moon in every respect. The close-up perspective on the lamp lends a comparatively imposing size to the modern electric light, overpowering an object which is both physically and culturally much more important. Thus the main murder taking place in Balla’s painting concerns the moonshine itself. The overwhelming brightness of the street lamp seems to illuminate the moon, an inversion of roles most pleasing to a Futurist aesthetic. The moon, relegated to a corner and deprived of its own light, is cast in the incandescent glow of the modern city. But as much as the street lamp is projecting light outwards, it also appears to function by drawing light to itself. The individual photons are arranged in the spherical pattern associated with the emission of light, but the direction of their U shape implies a motion inwards, towards the center of the lamp. Balla imbues the lamp with its own gravity, expressing the pull of the modern city for Futurist vision.

Thus, we begin to see the relationship between the Futurists and the city that characterized their vision. But, as Boccioni’s “The Street Enters the House” [2] demonstrates, early Futurism was still using its ideas “as a bludgeon to beat the old” (Tisdall, 1978, 123). The painting shows a harbor ringed by old houses, skewed and contorted in a Cubist style. Although the chaos and fragmentation certainly espouses the Futurist need for dynamism, Boccioni’s rectangular houses still speak of the old Europe. The motion in the painting, akin to a vision of an earthquake, is “still the solid reality of square stone blocks. They envisaged a Futurist city life, but not the Futurist city” (Tisdall, 1978, 123).

By the time Sant’Elia joined the Futurist crowd and generated a view of actual Futurist architecture, Marinetti had given concrete expression to the vision already implicit in his ideas. In his additions to Sant’Elia’s “Manifesto of Futurist Architecture,” Marinetti proclaimed that “architecture must be understood as the endeavor to harmonize, with freedom and great audacity, the environment with man, that is to say, to render the world of things a direct projection of the spirit” (Sant’Elia and Marinetti, Proclamation 8). This proclamation creates a lens through which to view Futurists’ visions of the city, which I will later apply to *Metropolis*. The “spirit” (of the Futurists) will cast its image directly on architecture, like Balla’s street lamp lighting the moon. Viewing the city in its physical and spatial sense, as an entity defined by its structural components (buildings, streets, parks, etc.), Marinetti makes the assumption that architecture is a tool with which to change “the world of things”—that is to say, the city itself (2).

Thus emerges the concept of city as a mirror image of the Futurist mindset, which effectively renders the city an avatar of Futurism’s obsession with speed, dynamism, and historical destruction. I employ the term “avatar” somewhat ironically since it generally refers to the human embodiment of an abstract concept; in the Futurist example, we see a decidedly impersonal embodiment of abstract concepts, which are expressed primarily in manifestos—in a fiery rhetorical language designed explicitly to drive human emotions (3). Nevertheless, the term accurately reflects Marinetti’s concern that the city, by means of its architec-

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2. Boccioni, *The Street Enters The House*. 1911

ture, be a concretization and physical articulation of the Futurist aesthetic.

Sant’Elia himself expressed this sentiment, before Marinetti’s hand came into play, when speaking of “an architecture whose raison d’être lies solely in the special conditions of modern life, whose aesthetic values are in perfect harmony with our sensibility” (Sant’Elia and Marinetti, 5). The city is thus not just an avatar in general, but an avatar for the modern (and, implicitly, Futurist) way of thinking, and as such, must represent a complete break from history. Like Naples, any old city must be disemboweled and paved over; the rise of the Futurist city should obliterate the historical foundations from which it rises. “It must be as new as our frame of mind is new” (Sant’Elia and Marinetti, 5).

Negative Space in the Futurist City

Building on the city as avatar, it is useful to examine the visions of the Futurist metropolis to find the concepts that characterize the Futurist mindset. In addition to the universal dynamism, which finds expression in massive transportation hubs, vast communication networks, a multitude of bridges, and light building materials, the Futurist city contains a concern for negative space.

To adequately characterize negative space in terms of a city, it is necessary to speak briefly of buildings in the abstract. Visualizing an empty, flat plain, stretching to all the horizons under an empty sky, we see that there is one infinite and unbounded space. Out of this infinite space, we then create a building by erecting a series of connected walls covered by a roof of some sort. As Simmel suggests, the fundamental characteristic of a wall (along with a bridge) is division or separation. From the large pre-existing space, a building carves out a new, smaller, self-contained space which is necessarily a strict subset of the larger space. At the same time, walls necessarily have an outside. This outside, which consists of the non-partitioned remainder of the original space, can now be defined either as being outside the presence of walls or as not being inside the presence of its own walls; it is negative space (4). Two expressions of such negative space are integral to the Futurist city, where they become “negative urban spaces:” vertical space, as created by skyscrapers; and the streets.

The Futurist city projects upwards, into the sky. Marinetti calls to “raise the level of the city” (Sant’Elia and Marinetti, 10). This desire for the ascendant in the city relies on the buildings built “of reinforced concrete, of iron, of glass, of paste-board, of textile fiber . . . which make possible maximum elasticity and lightness” (Sant’Elia and Marinetti, Proclamation 1). Flexibility and lightness in architecture allow true skyscrapers to emerge, as Fritz Lang observed in New York City.

But for all their celebration of lofty towers, the Futurists were just as preoccupied with how the “city in the sky” represented a decisive break from the old. Just as “perpendicular and horizontal lines, cubic and pyramidal forms” are denounced for being “static, heavy, oppressive, and absolutely alien to our new sensibility,” the new building materials are important as “substitutes” (Sant’Elia and Marinetti, Opposition 4; Proclamation 1). It is just as important to be high above the ground as it is to not be close to it. The desire to break away from gravity is analogous to the desire to break away from the past. Here we see Marinetti and Sant’Elia implementing their city as an avatar, creating a vision that flies from the earth at the same time as it flies from history.

But Sant’Elia’s sketches for La Città Nuova do not present the interiors of these new cityscapes. Instead of presenting life from the inside, Sant’Elia chooses to focus on the exterior of the buildings; the actual mechanics of how these buildings support themselves is masked behind the smooth façades and opaque windows (5). At the same time, the buildings are remarkably unadorned, appealing to Marinetti’s notion that “nothing is more beautiful than the steel frame of a house in construction” (Marinetti, 1991, 89). Nor are the views those of a person standing inside one building and looking outwards onto the city. The eye of Sant’Elia’s sketches is disembodied, floating somewhere between street level and the tops of the buildings, al-

4. Sant’Elia, La Città Nuova, train station and airport 1914

5. Sant’Elia, La Città Nuova, power plant 1914
The emphasis is decidedly on motion through the vertical plane. It seems that negative space is strongly identified with vertical space.

Although the human element is lacking from *La Città Nuova*—the presence of any people, either directly or indirectly (in vehicles) generally exist solely to give a scale for the building’s height [4, 6]—there exists a concern for the spaces in which people move between the buildings. Streets, despite any physical reality they may have in terms of concrete, are defined as the space between two buildings. Systems of transportation are central to the Futurist city, and Sant’Elia’s detail [3] has no less than four different street levels, two of them comprised of bridges with open-air steel grid walls; all of the levels are open to each other. The sketch of the apartment building also displays two street levels [6]. The combined train station and airport [4] exemplifies Sant’Elia’s assertion that “the street, which will no longer stretch like a foot-mat with the porters’ lodges, but will descend into the earth on several levels, will receive the metropolitan traffic and will be linked, for the necessary passage from one to the other, by metal walkways and immensely fast escalators” (Sant’Elia and Marinetti, 9). The boarding platforms are below ground level and yet are completely open spaces connected with foot bridges and escalators.

The necessity of multiple-level streets reads as an extension of the Futurists’ manic desire to break with history. Technically, expressions of negative space are present in Venice, the bane of Futurist thought. Buildings still rise above ground level, and streets still exist between them. But just as the Futurists perceived meager amounts of tall buildings to be defects, and dreamed of supple skyscrapers to represent their abandonment of history, they also took the streets and expanded them both upwards and downwards. Being able to move vertically between multiple streets metaphorically continues Marinetti’s murderous designs towards history.

Combining the vertical spaces with the street, Sant’Elia devises what he terms a “tumultuous abyss” (Sant’Elia and Marinetti, 9). The image is striking in its accuracy; we are tempted to imagine the buildings as the walls of a chasm opened by an earthquake. The stone faces of the buildings’ sides are blank, impassive surfaces, “without painting and without sculpture,” and far below at the bottom flows a churning river of automobiles and pedestrians (Sant’Elia and Marinetti, 9). This explains Sant’Elia’s removal of interiors from his sketches; the buildings are meant to resemble actual cliff faces.

This contrasts markedly with Boccioni’s *The Street Enters the House* [2], where the open space of the harbor reaches out and, with its own hands, drags a person out from the rings of houses that crumble at the perimeter. Boccioni expresses a fundamentally urban experience: that of the invasion of the private by the anonymous public. Tisdall quotes Boccioni’s catalogue for the 1911 exhibit: “The dominating sensation is that which one would experience on opening a window: all life, and the noises of the street rush in at the same time as the movement and the reality of the objects outside. The painter
does not limit himself to what he sees in the square frame of the window as would a mere photographer, but he also reproduces what he would see by looking out on every side from the balcony” (Tisdall, 1978, 43).

Here, the boundary between the inside and the outside, the positive and the negative, is tenuous and often breached. Boccioni feels that the essential activity of the street must sweep in like wind when the window is thrown open. Sant’Elia neither agrees nor disagrees with this sentiment; in La Città Nuova, the inner spaces are completely segregated from the outer (6). There can be no interaction because the outside is omnipresent, and the cliff walls that rise above the street are impermeable (7). In the new city, windows serve only to make the buildings more magnificent, instead of providing a gateway between the inner and outer worlds.

Metropolis as Futurist Vision

With its destructive and bellicose tendencies, the Futurist movement ended up as the unfortunate partner of Fascism. But it seized on several salient characteristics of the European experience in the early 20th century; the Futurist preoccupation with universal dynamism (basically the apotheosis of speed) masked an anxiety over the increasingly frenetic and mechanical pace of life stemming from rampant industrialization. Whereas Marinetti and Sant’Elia attempted to embrace and thus apotheosize modernity, Fritz Lang’s Metropolis confronts industrialization and finds instead a nightmare of the mechanized worker. In creating his future dystopia, Lang and his production team realized a metropolis that, at least superficially, bears striking resemblance to the Futurist city.

In some of his sketches for Metropolis, art director Erich Kettlehut produced cityscapes which share many characteristics with Sant’Elia’s sketches [8, 9]. The high glass-and-steel buildings stand above multi-level streets with raised bridges for both pedestrians and automobile traffic; there is even an airport built at the top of the tallest building [8]. But in some ways, Kettlehut’s drawings are more in line with a Futurist aesthetic than Sant’Elia’s; Kettlehut’s streets are filled with both automated and human traffic, and there are even open shops where people enter and exit the ground floors [9]. These initial visions of what would become The City of the Sons certainly align us to a Futurist perspective on Metropolis.

The film itself presents a city which embodies many of Futurism’s principles. The remarkable cityscape shots that Lang scatters throughout the film maintain a strong resemblance to Kettlehut’s drawings, with the high, flat buildings and multi-leveled streets and raised bridges [11, 12, 13]. Just as Kettlehut incorporates motion into his drawings, Lang’s city courses with the exalted universal dynamism that Sant’Elia’s sketches lack. But there are two other principles which most strongly link Metropolis to Futurism, and, ironically, they are not visual.

First, Metropolis generates a city without a history. Even if the Upper City is not rebuilt by every generation, it is certainly a city to which time means nothing. At some indefinite point in the past, the Upper City was constructed, somebody first switched on the machines, and the Workers’ City was carved out of the earth. Its inhabitants are ignorant of their past. Freder, before Maria’s visit at the film’s opening, knows nothing of the workers who toil underground. Initially, the workers do not have a mythology to explain their indentured present; this is precisely what Maria provides for them in her recounting of the story of the Tower of Babel (8). Even then, it is merely a
Christian allegory, with no basis in the actual history of the Workers’ City. The only hint of past historical processes is in Rotwang’s house, which was clearly built some time ago. Ironically, it contains the most advanced technology in the city.

The second link between Metropolis and Futurism is verticality. Sant’Elia concludes the body of his Manifesto with the decree, “let us sink squares into the ground, raise the level of the city” (Sant’Elia and Marinetti, 10). Indeed, this is exactly what happens in Lang’s Metropolis. The only square given significant screen time is the one in the Workers’ City where the children gather during the flood [14]. The city realized in Kettlehut’s drawings is really just the tip of an iceberg; the world of air, glass, and steel is what I will call the Upper City. But below the ground lurks a complicated structure on which this Upper City rests.

As the plot progresses, the viewer, along with Freder, learns that the complex comprising the actual Metropolis consists of four levels. Above ground is the Upper City, and at the tops of the buildings there exist the pleasure gardens where Maria visits Freder (9). She leads him down directly below the surface, where lie the vast arrays of machines which power the Upper City. Below the Machine Level, connected by a series of elevators and rickety stairs, is the Workers’ City. Once the narrative shifts to the leader of the Upper City, Joh Fredersen, the viewer gets a glimpse of the lowest level: the Catacombs. These levels are related only vertically, like strata.

Thus the concern for vertical space already developed in our discussion of negative space finds literal expression in the world of Metropolis. This proves to be another application of the city as avatar, in that the class hierarchy in Joh Fredersen’s mind finds itself concretely manifested in the architecture and layout of the city; vertical space is the avatar for class division. These four layers resemble four stories in any skyscraper in a Futurist city. But for Lang, who was much more concerned with the deleterious effects of machinery, the vertical distances serve only to express the disenfranchisement of the workers. In this sense, Lang opens up the smooth empty streets of Sant’Elia’s sketches and peers down into the earth; he examines the entirety of the iceberg of which Sant’Elia’s buildings are only the tip. A closer examination of the levels of the Metropolis will reveal how Lang’s film raises issues swallowed in the Futurist’s blind extermination of the past (10).

As in any building, these levels have a specific relationship: any given layer supports the one above it while simultaneously repressing and being dependent on those below it. The Upper City relies on the electric power produced by the Machine Level but refuses to incorporate any of the actual machines into the architecture above the surface. The Machines (and, implicitly, the Upper City) in turn require the presence of the human workers to operate them, while at the same time subjugating the workers to an impoverished existence in a blocky city of stone even deeper in the earth (11). Lang brilliantly expresses this relationship in the scene where Freder operates the clock-like machine [15]. Without a human to perform the extraneous task of lining up the hands, the machine will not work; after 10 hours of this mindless task, Freder is exhausted (12). The relationship between the two levels is parasitic, not symbiotic. Josef Bottlik’s movie poster also demonstrates this relationship by alluding to the Atlas myth [16].

Underneath the Workers’ City are the catacombs, where Maria preaches her doctrine of rebellion and revolution. Being the oldest, this level is crumbling, unoccupied, and dead. Interestingly, it is the only part of the Metropolis for which the viewer ever sees a map. The catacombs represent the suppressed spirituality and humanity of both the workers and the Upper inhabitants. They contain the history,
mythology, and hope that Maria is able to tap when inciting her rebellion; they have the same effect on the workers and on Freder. On the other hand, the accessibility of this vivacity increases with physical proximity to this deepest level. The workers are the first group Maria converts; second is Grot the Foreman, who controls the Machine Level; finally, by the conclusion, Joh Fredersen himself is converted (13). The power of the catacombs slowly works its way towards the surface as the movie progresses.

All the movement in the film is directed in the vertical plane, both thematically and literally. Maria must ascend to retrieve Freder, who in turn descends into the earth, only to return to the surface after the flood. Joh Fredersen also descends in order to glimpse Maria’s preaching; the Robot moves repeatedly between the levels, inciting both crowds to riot. Most important is the upward surge of the workers once moved to action. They overflow the tiny elevators which slowly rise up to the Machine Level. Freder and Rotwang, who have been moving towards each other during the movie, enact their struggle on top of the cathedral. Having defeated the inventor, Freder is able to descend again to the level of the square.

Lang’s film transforms the Futurist development of the city as an avatar into a vision of the machine actively pressing modern man into the earth. The skyscrapers and multilevel streets express only the alienation of all the Metropolis’s citizens. Consider the "tumultuous abyss," which in Sant’Elia’s formulation expresses the vitality of the city. In Metropolis, the activity in the abyss is only the frothing madness of a crowd incited to riot by the Robot or the horde of children fleeing from the flooding of their homes. The children, led by the real Maria, flee upwards on rickety stairs to escape the rising waters. Here, negative urban space is something to be climbed, an obstacle that must be overcome in order to survive.

Metropolis uses its physical city as a metaphor for class struggle and the repression (and eventual recovery) of history. The same system of towering buildings, elevators, and bridges that make possible the luxurious life of the Upper City also reads as a critique of the Futurist mindset. The history of the Metropolis is both suppressed and recovered by motion through the vertical spaces of the city. It is clear that, for Lang, only by ample and frequent communication between the various levels of the Metropolis will any semblance of happiness occur. Transgression across the vertical boundaries (Freder's assimilation into the Worker culture, the ascendance of both Maria and her doppelganger Robot into the Upper City, the flood that forces the children out of the Workers' City) is the only means of unification. In this sense, the elevators metaphorically represent the greatest hope. Although Lang questioned the clean simplicity of the Futurist vision, he nonetheless recognizes that some of the elements the Futurists advocated most vehemently may serve to level society. It thus seems possible that some of Futurism's ideas have the potential to destroy the things they support, although, in the end, this might have been exactly what Marinetti wanted.

Author Notes

1. A trace of this concept exists in contemporary idiom, where one can “go out into the world.” We see that the juxtaposition of “out” and “in” hints that although someone might be entering a space (“the world”), he can only do so by leaving whichever space he currently occupies.

2. This assumption, of course, rests on the assumption that urban planning, as the arrangement of these structures, has a minimal effect
on the city. This assumption is probably naïve, but my paper will follow Marinetti in exploring a one-to-one relationship between architecture and the city, as an investigation into the actual relationship between architecture, urban planning, and the city would require another paper.

3. As will be discussed later, the inhabitants of Sant’Elia’s La Città Nuova are virtually nonexistent.

4. This is not, for our purposes, an important distinction; it is essentially a matter of perspective. Defining negative space as outside the walls of another space emphasizes the separation between the two spaces. Defining it as its own space lacking bounding walls chooses to stress the infinitude inherent in negative space; in this sense, only one gigantic negative space exists in the universe.

5. This is an interesting contrast to other visions of the modern metropolis, where the interiors of old buildings often show like the ribs of a starving man. Consider Rilke’s The Notebooks of Malte Laurids Brigge, where a gutted house in Paris shocks and terrifies the narrator.

6. Here arises a point of debate over the true Futurist bent of Sant’Elia’s work. The young architect was recruited by Futurism as Sant’Elia joined the movement (Tisdall, 1978, 125-8). As Tisdall notes, Boccioni’s vision of the violent interpenetration of the positive and negative spaces is representative of Marinetti’s vision in the “Technical Manifesto”: “Space no longer exists: the street pavement, soaked by rain beneath the glare of electric lamps, becomes immensely deep and gapes to the very center of the earth” (Tisdall, 1978, 42). As much as this echoes Sant’Elia’s “tumultuous abyss,” Marinetti still felt compelled to alter Sant’Elia’s “Message” from the La Città Nuova opening into a manifesto. And Sant’Elia’s absolute division of positive and negative space certainly ignores Boccioni’s ideas. But a full investigation of these issues must remain for another paper.

7. This partitioning of space extends even within different negative spaces; the city “was a complex in which buildings, mechanized and pedestrian traffic, were to share a space but function separately” (Tisdall, 1978, 131).

8. I abstain from dealing with the romantic ideals expressed in the plot of Metropolis, as the actual mechanics of how the revolts occurs, who is implicitly blamed, and the eventual reconciliation of the workers with the children of the Upper City are not relevant to my argument (in addition to being somewhat absurd or naïve).

9. These pleasure gardens would certainly be the place for someone like Marinetti, who was wealthy and lived in decidedly non-Futurist surroundings.

10. A Marxist perspective reveals an interesting comparison; if all history is simply class struggle, then the Futurists would, by exterminating history, also eliminate class struggle. Lang, however, understands that even a mechanical utopia of speed and movement must still be supported by the types of machines the Workers operate.

11. The Workers’ City has many of the qualities that the Futurists denounced—especially the building materials.

12. This is precisely the reason Rotwang creates the Robot—to eliminate the Machines’ dependence on men. If his scheme had succeeded, then the relationship would have been broken and the Workers’ City could have been destroyed without consequence.

13. This leaves out Freder and Rotwang, who, as the respective hero and villain, are presented as exceptional cases.

References


Casey Riffel

Having grown up in rural Snohomish, Washington, Casey Riffel has a hankerin’ for the big city. He plans to write his honors thesis on simulations of nature in present-day New York City. This paper is the project that sparked his academic interest in cities. June, 2005 will see Casey receive a B.A. in Interdisciplinary Studies in Humanities with a Creative Writing minor and an M.A. in Sociology. He thinks student publications are really something else and should always be funded. Nothing at all would be possible without Casey’s friends over at Seaforth Boat Rentals (namely Justin, Peter, and Genny). He would like to thank his mentors Paul Robinson from the Department of History and Elena Coda from the Department of Italian.