MA IN THE HISTORY OF ART

EXPERIENCING MODERNISM:

UTOPIA, POLITICS, AND TIMES OF TURMOIL

ESSAY TWO

FLORA LOUGHRIDGE

4,189 (excluding bibliography and footnotes)

Film Architecture, Utopia and Urban Vision in *Metropolis* by Fritz Lang, 1927

Weimar cinema marked a period of innovation in the construction and visual deployment of urban topographies in film. The 'inherent technical quality' of the new filmic medium enabled filmmakers to depict urban spaces with renewed clarity, bringing about a 'rebirth of architecture' in cinema that mirrored modernist innovations in 1920s German *Neues Bauen* (New Building).[1] Cinema and architecture fused to become the independent art form 'film architecture', which was considered more than just a scenic background, or what film historian Paul Rotha termed 'an architecture of facades'.[2] Its 'spatial interventions' were perceived as both the 'agents and indicators' of a fluctuant and expansive urban fabric that had shaped 1920s Berlin into a modern industrial metropolis.[3] The Weimar film set transformed urban space into 'perceptual space', becoming a testing ground for exploring urban fantasies and architectural visions.[4] Cinema was arguably the most effective medium to comment on the changing blueprint of German cities during the interwar period.

Against this backdrop of cultural experimentation, architecturally trained filmmaker Fritz Lang developed an urban imagery to express his own futuristic vision of the city in the year 2000. Lang's 1927 film *Metropolis* was, like Walter Ruttmann's *Berlin: Die Sinfonie der Großstadt*, a forerunner in the use of explicitly filmic techniques to dramatise the symbiotic relationship between cinema and urban topography.[5] Infused with 'rich spatial imagination', the sublime urban landscape of industrialist Joh

---

[1] Dietrich Neumann, ed. *Set Designs from Metropolis to Blade Runner* (Munich; New York: Prestel, 1999), pp. 7; 8.
[2] Wolfgang Jacobsen and Werner Sudendorf, *Metropolis: ein filmisches Laboratorium der modernen Architektur* (Stuttgart; London: Edition Axes Menges, 2000), p. 9;
Janet Ward*, Weimar Surfaces: Urban Visual Culture in 1920s Germany* (Berkeley: University of California Press, 2001), p. 143.
[3] Sabine Hake, *Topographies of Class: Modern Architecture and Mass Society in Weimar Berlin* (London: University of Michigan Press, 2008), p. 2.
[4] Ibid, p. 172.
[5] *Metropolis*, dir. by Fritz Lang, 1927, Ufa Productions (Reconstructed & restored version on DVD: Eureka Entertainment, 2010); *Berlin: Die Sinfonie der* Großstadt, dir. by Walter Ruttmann, Fox-Europa Film Production, 1927 (Chatsworth, CA.: Distributed by Image Entertainment, c. 1999);
Sabine Hake, 'Urban Spectacle in Walter Ruttmann's *Berlin: Symphony of the Big City*', in *Dancing on the* Volcano*: Essays on the Culture of the Weimar Republic*, ed. by Stephen Brockmann and Thomas W. (Columbia: Camden House, 1994), pp. 127-143 (p. 127).

Fredersen's skyscraper city in *Metropolis* is indeed a powerful celebration of film architecture.[6] Special effects combined studio models of the upper city streets and towers with film architect Erich Kettelhut's urban drawings, to achieve the perfect filmic representation of an urban utopia. Whilst critics have often focused on the 'astonishing and innovative beauty' of the *Metropolis* set, in this paper, I view film architecture not merely as an attempt by Lang to aestheticise the city, but to also reflect on the changing urban landscape of Weimar Berlin.[7] The architectural setting of the upper city at times promotes the 'illusion of a unified, auratic "whole" world' that transfixes the viewer.[8] However, the cinematography constantly strives to retrieve the film architecture from its 'uncritically observed context' and render it critical, both in the immediate context of the narrative, and in the wider context of Weimar urbanism.[9] Lang's film architecture represents the combination of utopian vision and modern reality that shaped Weimar urban discourse – caught between dreams of a high-rise city and the anxiety that often transformed these visions into dystopian nightmares. Cinematic montage exposes the 'complexities and contradictions' inherent in the urban environment and challenges a 'cohesive vision of modernity'.[10] I suggest that the *Metropolis* set and production stills not only provide further insight into the complex relation between the city and urban dweller, but also replicate real processes of urban development, in modelling the transition from 'architect's vision' into 'inhabitable space'. Breaking down the boundaries between the real and fictional city, filmic art and architecture unite in reflecting the on-screen urban landscape back onto the streets and premiere theatre advertising of 1920s Berlin.

---

[6] Anton Kaes, 'Metropolis: City, Cinema, Modernity', in *Expressionist Utopias: Paradise, Metropolis, Architectural Fantasy*, ed. by Timothy O. Benson and Edward Dimendberg (Berkeley: University of California Press, 2001), pp. 146-165 (p. 146).
[7] Michael Minden and Holger Bachmann, eds. *Fritz Lang's Metropolis: Cinematic Visions of Technology and Fear* (Rochester, N.Y.: Camden House, 2000), p. 107.
[8] Kaia Jeanne Scott, 'Critical Destructions: Kracauer and Benjamin's Weimar Writings on Architecture, Film, and the Cultural Public Sphere' (MA thesis, Simon Fraser University, 2007), p. 56.
[9] Anthony Vidler, 'The Explosion of Space: Architecture and the Filmic Imaginary', in *Set Designs*, ed. by Dietrich Neumann, pp. 13-15 (p. 20).
[10] Dietrich Neumann, 'The Urbanistic Vision in Fritz Lang's *Metropolis',* in *Dancing on the Volcano*, ed. by Brockmann and Kniesche, pp. 143-162 (p. 154).

'Modelling' the City – Processes of Urban Construction

Art historians often describe a clear-cut transition in German architecture during the interwar years, from the fantastic utopian visions of Expressionism, to a superseding period of pragmatic design. Film historian Sabine Hake suggests, for example, that the utopian socialism immediately following the First World War 'quickly gave way to pragmatic reform initiatives' and a drive towards Functionalism.[11] The film architecture of *Metropolis* does not fit neatly into either category, suggesting that such a shift in modernist architecture from utopianism to realism may be too clear-cut. For in spite of its Functionalist aesthetic, *Neues Bauen* architecture formed an 'integral part of the urban imaginary' with its utopian impulse to construct a modern society through social and political reform and the reinvention of urban space.[12] The architecture of *Metropolis* gives visual expression to this tension, modelling a city caught between idealism and realism, 'a space where a multiplicity of discourses intersect'.[13] Although Lang ultimately 'belong[ed] to the realists', his vision for *Metropolis* played on the urban fantasies of Expressionist architects.[14] Lang prevented the upper city from looking so real that it became a mere prosaic imitation of a modern German city, demanding that his viewer be engaged, rather than having the typically 'blasé attitude' of the modern dweller, as described by sociologist Georg Simmel.[15] The intersection of realism and fantasy is dramatised in the film's opening sequence, taken from Kettelhut's oil painting *Daybreak*, in which a dense mass of soaring skyscrapers is depicted as a continuous mountain range (Figs. 1-2). The infusion of natural imagery brings to mind Bruno Taut's utopian 'Alpine Architecture' drawings, in which glass structures assert the mystical quality of nature over the harsh materiality of urban existence (Fig. 3).

[11] Hake, *Topographies of Class*, p. 104.
[12] Ibid, p. 112.
[13] Barry Keith Grant, ed. *Fritz Lang: Interviews*, Conversations with Filmmakers Series (Jackson: University Press of Mississippi, 2003), p. x.
[14] Ibid, p. xii.
[15] Georg Simmel, 'The Metropolis and Mental Life, in *Simmel on Culture: Selected Writings*, ed. by Mike Featherstone and David Frisby (London: Sage Publications, 1997), pp. 174-187 (p. 179).

Kettelhut fuses these idyllic natural forms with high-rise buildings, an uncompromising representation of the 'robust materialism' of the new industrial age.[16] The skyline is reminiscent of architect Hugo Ferriss's dense skyscraper designs for New York, a city already clustered with high-rises by the 1920s (Fig. 4). Kettelhut's projection of the fantastical skyscraper city, an inevitable vision of modernity, alludes to the symbiosis of utopia and realism that influenced the modern era of urban construction.

The self-reflexive nature of *Metropolis* provided Kettelhut and Lang with suitable space to explore the construction process through which utopian architectural visions might become a reality. A sequence on the Tower of Babel, a biblical story narrated to the underground workers by the 'good' Maria, conveys to the viewer the difficulty, or indeed futility, of realising utopian urban visions. An opening shot presents the fictional architect as visionary 'thinker', contemplating the transformation of his model Tower of Babel into a life-sized building (Fig. 5). This shot mimics a production still, taken by Lang's brother-in-law Horst von Harbou, in which Lang is seen constructing the model tower, whose wooden sections pulled apart to illustrate the tower's destruction later in the sequence (Fig. 6). Whilst Lang was able to transpose his architectural vision into reality, on and off-screen, the Tower of Babel remains, nonetheless, an allegory of unattainable urban vision. It evokes the spiritual utopian idea championed by German Expressionist architects, that every community should build a central monument or 'City Crown' to promote social unity. This became a potential reality in Berlin, when in 1921, the *Bund Deutscher Architekten* invited architects to design the city's first site-specific skyscraper.[17] The proposed eighty-metre high central landmark at Friedrichstraße, similar to the New Tower of Babel in Fredersen's city centre, would reflect Weimar Berlin's emerging status as modern metropolis. Although the

[16] Charles W. Haxthausen and Heidrun Suhr, eds. *Berlin: Culture and Metropolis* (Minneapolis; Oxford: University of Minnesota Press, 1990), p. 60.
[17] Adolf Behne, 'The Competition of the Skyscraper Society', in *Metropolis Berlin 1880-1940*, ed. by David Frisby and Iain Boyd Whyte (Berkeley: University of California Press, 2012), pp. 334-340 (p. 334).

competition attracted 144 submissions from Weimar-era architects, including Mies van der Rohe's radical proposal for a glass office tower, the skyscraper development was not realised due to economic crisis and limited construction technology.[18] The Tower of Babel in *Metropolis* was also not built, owing to lack of communication between the architect and his workers. Like the Friedrichstraße skyscraper, the tower remained a mere model existing just 'as illusions live', with the fictional architect kneeling before the Marian-like apparition of his tower at the end of the sequence (Fig. 7).[19]

Whilst economic hardship and material shortages in the Weimar years prevented a skyscraper development from being built in Berlin, film remained 'unfettered by the material constraints of gravity and daily life'.[20] Cinema enabled Lang to explore the process by which architectural visions become a reality. He reproduced, through film and set production, the design processes used by German modernist architects to translate an architectural drawing into a model, and ultimately inhabitable building or space. *Neues Bauen* architects produced buildings that gave form to the dynamic process of their construction, made apparent by visible structural elements and materials. Lang's cinematography replicates on-screen this dynamic architectural process, evoking the art of *cineplastics*, a term coined by historian Elie Faure in 1922 to describe how the filmic image could be shaped and sculpted into different forms to represent a 'moving architecture' in 'repose or in movement'.[21] As period critic Heinrich de Fries suggested in 1920, 'film is a kind of stage' on which architectural space is remodelled.[22] A 'still' is no longer a picture, but 'becomes space through the third dimension – the dimension

[18] Neumann, 'The Urbanistic Vision', p. 149.
[19] Grant, *Fritz Lang: Interviews*, p. 69.
[20] As stated by urban planner John Robert Mullin, 'although planners and architects experienced extensive practical inactivity' in the first half of the 1920s in Germany, 'at the same time, it was a period of extensive theoretical thinking, congresses, manifestos and utopian writing.' Mullin, John Robert, 'Ideology, Planning Theory and the German City in the Inter-war Years', *Town Planning Review,* 53 (1982), 115-130, p. 119;
Vidler in Neumann, *Film Architecture*, p. 14.
[21] Elie Faure, *The Art of Cineplastics*, trans. by Walter Pach (Boston: the Four Sea Company, 1923), p. 24.
[22] Heinrich de Fries, 'Spatial Design in Film', in *Film Architecture*, ed. by Neumann, pp. 183-185 (p. 184).

of spatial depth away from the picture surface.'[23] When applying Fries's concept of spatial design to *Metropolis*, the term 'picture' should be replaced with the word 'drawing'. For indeed, many of the architectural spaces that appear in the film originated from a series of city drawings made by Kettelhut. By heightening the depth of these naturalistic images and emphasising their inherent architectural structures, as seen in *Neues Bauen* buildings, the construction of inhabitable urban spaces in *Metropolis* was facilitated.

Kettelhut's gouache and pencil drawings of the upper world in *Metropolis* were not only crucial to planning the imaginary city, but were also directly interwoven into its on-screen architectural fabric. Film technology moulded these images into solid, three-dimensional architectural forms by animating their two-dimensional photographic surfaces. In particular, a pioneering 'trick' termed the 'Schüfftan process' by *Metropolis* cinematographer Eugen Schüfftan, transformed Kettelhut's city drawings and models into dynamic full-sized structures on-screen. Sections of a mirror placed at an angle to the camera were scratched away to reveal live actors, proportionate in size to the reflection of the city drawing or model placed behind the camera, giving the impression of people moving in real buildings.[24] This process was used in the final shots of *Metropolis*, in which a crowd of workers chases the 'evil' Maria along a roadway between two enormous apartment blocks, crafted from a projected drawing of Kettelhut's (Fig. 8). Through the 'combination of reality and artifice', the camera unlocks the two-dimensional plane of the drawing, making it inhabitable for both the film characters and the viewer.[25] This technique resonates with film phenomenologist Vivian Sobchack's belief that the moving image presents a 'concrete and habitable world' that 'is to be lived rather than contemplated', unlike the 'thin abstracted space of

[23] Ibid, p. 184.
[24] Sara Leedom, 'The Schüfftan Process', *Metropolis – A Case Study*, 2007, <http://metropolisvixfx.blogspot.com/2007/10/schufftan-process.html> [accessed 6 February 2019]
[25] Grant, *Fritz Lang: Interviews*, p. 70.

the photograph', or indeed Kettelhut's drawing.[26] In this example, the graphic forms of the lifeless buildings behind the roadway are transformed into an immersive urban space.

In emulating real architectural design processes, the camera converted not only Kettelhut's drawings, but also studio models into a believable if somewhat fanciful on-screen urban utopia. In 1925, production designers Otto Hunte and Kettelhut created, in close co-operation with Lang, a half-sized model of the main street of *Metropolis*. This six-metre deep model, which dominated Babelsberg Film Studio, was built of wood, plaster, canvas and painted cardboard, comprising buildings stepped back in dense perspectival layers and overshadowed by the New Tower of Babel (Fig. 9).[27] The camera created such a 'convincing appearance of realism' that the city model, with its modernist glass and steel aesthetic, became a physical manifestation of Weimar architects' fantasy skyscraper city.[28] Due to the immediacy of the moving image, the model came to represent not a utopian vision 'finished in the past', but a tangible utopian *presence* 'coming into being and being.'[29] Similarly, Kettelhut had been tasked with building models of First World War battlefields for the military, using aerial photographs to give concrete form to likely action.[30] The Weimar metropolis was itself in the process of 'becoming', defined by a restless energy and series of fleeting encounters.[31] Special effects used by Günther Rittau, Lang's cinematographer, found

[26] Vivian Sobchack, *Carnal Thoughts: Embodiment and Moving Image Culture* (London: University of California Press, 2004), p. 151;
Ibid, p. 145.
[27] Neumann, *Film Architecture*, p. 98.
[28] *Metropolis* co-screenwriter, Thea von Harbou specifies in the screenplay that stone building masses in the upper city should be 'interrupted by the glass-steel structures' of the New Tower of Babel: 'unterbrochen durch Glas-Stahl-Bauten'. Thea von Harbou, *Metropolis*, Screenplay, SDK 12268, Owned by Gottfried Huppertz (Berlin: Archiv der Deutschen Kinemathek – Museum für Film und Fernsehen, c. 1925, p. 86);
Bachmann and Minden, eds. *Fritz Lang's Metropolis,* p. 83.
[29] Sobchack, *Carnal Thoughts*, p. 147.
[30] Erich Kettelhut, *Erich Kettelhut – Der Schatten des Architekten*, ed. by Werner Sudendorf (Munich: Belleville, 2009), p. 17.
[31] This resonates with Karl Scheffler's famous 1910 dictum that the city is destined to develop rather than simply exist: 'immerfort zu werden und niemals zu sein'. Quoted in Peter Fritzsche, 'Landscape of

their primacy in this dynamism. Stop motion animation injected life into the city model's multiple traffic layers, with 'circulation' becoming, according to Weimar urban planner Martin Wagner, the 'driving force' behind the city's continued modernisation and 'urban development'.[32] Film sequences of smoothly circulating aeroplanes and cars used over three hundred model vehicles, which were moved a few millimetres, per filmic frame (Fig 10). The camera harnessed the kinetic energy of the city through this meticulous process, converting the model into a steady and well-connected metropolis (Fig. 11).

Similar street models constructed at Babelsberg Studio for German film production company Ufa were so life-like, that the studio was considered a city in its own right (Fig. 12). Cultural theorist Paul Virilio, described Babelsberg as being like Hollywood, a 'city of living cinema', in which 'sets and reality', 'urban planning and cinematic footage planning' merged 'to the point of delirium'.[33] A journalist, reporting from the *Metropolis* film set in 1925, conveyed this conflation of real and simulated urban spaces, describing his on-set experience from the point of view of the cameraman, as though the buildings were life-sized and he was 'climbing up a high tower'. [34] By exaggerating the scale of Lang's skyscraper city, the journalist transformed the *Metropolis* film set into an inhabitable urban space, in which he encouraged his readers, like the film viewers, to suspend their disbelief, and immerse themselves in this filmic utopia. The fantasy world became particularly accessible to the period viewer due to Ufa's marketing of *Metropolis* as the future 'destiny of humanity'.[35] Lang, like the journalist, did not reveal 'how special effects [were] achieved', as he believed that 'rather profane' explanations would indeed compromise the fantastical quality of the

---

Danger, Landscape of Design: Crisis and Modernism in Weimar Germany', in *Dancing on the* Volcano, ed. by Brockmann and Kniesche, pp. 29-47 (p. 35).
[32] Hake, *Topographies of Class*, p. 40.
[33] Ward, *Weimar Surfaces*, pp. 155-156.
[34] Ibid, p. 144.
[35] Jacobsen and Sudendorf, *Metropolis: ein filmisches Laboratorium*, p. 29.

upper world.[36] He preferred to leave the city of *Metropolis*, like Babelsberg city, hovering intangibly between the realms of utopian imagination and urban reality.

A Fragmented Metropolis

Film theorist Siegfried Kracauer wrote critically of the illusory quality of set design. He described 1920s cinema culture as a commodity designed to distract the viewer, its film architecture so realistic that it kept the real world out. Whilst the camera could transform the set into a 'highly believable reality', Kracauer argued that this reality remained, nonetheless, purely filmic.[37] He suggested that the sublime architecture depicted in Weimar films such as *Metropolis*, 'distracted' architects from the 'distressing and fractured' urban landscape of the real world, becoming a tempting substitute for architectural projects during the stagnant period in construction following the First World War.[38] I consider an alternative reading that replaces Kracauer's notion of 'distraction' with the concept of 'immersion', and suggest that the *Metropolis* set purposefully breaks down the boundaries between the real and simulated city, since it is only through 'inhabiting' the filmic world that the viewer can, or indeed could, form a critical understanding of his own rapidly modernising city. The upper world of *Metropolis* appeared as an 'existential site' of Weimar modernity, in which the period viewer became, like Fredersen's underground workers, 'the object of, and unwitting participant in', a series of 'incomprehensible and uncontrollable' urban changes.[39]

The cinematic portrayal of *Metropolis*'s upper city simulates the tensions underlying rapid rates of urbanisation and industrialisation in 1920s Berlin. Unprecedented lateral expansion into the suburbs had transformed the 'big city' into a modern 'metropolis',

[36] Bachmann and Minden, *Fritz Lang's Metropolis*, pp. 73-74.
[37] Ward, *Weimar Surfaces*, p. 148.
[38] Scott, 'Critical Destructions', p. 56.
[39] Anton Kaes, 'Sites of Desire: The Weimar Street Film', in *Film Architecture* ed. by Dietrich Neumann, pp. 26-32 (p. 30).

with ‘very little centralised planning’.[40] Lang used montage to mirror the physically disparate Weimar cityscape and ‘unfathomable’ geography of Fredersen’s city, replacing ‘homogenous filmic space’ with a ‘faceted and discontinuous conception’ of the urban environment.[41] In a montage sequence entitled ‘Vision’ at the beginning of the film, the upper city is deconstructed into a plethora of disparate images. An opening shot from Fredersen’s office at the top of the New Tower of Babel establishes a comprehensive view of his metropolis (Fig. 13). The camera swiftly cuts to a sequence of four drawings by Kettelhut (Fig. 14), in which this cohesive city view splinters into an apocalyptic image of fragmented high-rise buildings, superimposed over each other through four dissolve shots (Fig. 15). The rectilinear framework of the office windowpanes, reflecting Fredersen’s ‘grid-like’ control over his urban utopia, shatters into a cinematic ‘collage’ of jarring intersections: a jumble of office blocks, with high-rise buildings projecting awkwardly from below the city skyway. This ‘fissured and fragmented’ vision, daringly interwoven with attractive shots of Fredersen’s city, forecasts the workers’ revolution that subsequently threatens to destroy the upper world.[42] The significance of the montage also extends beyond the fictive realms, anticipating the growing anxiety surrounding the potential vertical expansion of Weimar Berlin.

Whilst *Metropolis* makes no attempt to project an *accurate* representation of Weimar urban development, Lang certainly comments on the dialectical juxtaposition of architectural vision and reality that shaped 1920s urban discourse. His ‘Vision’ sequence of fragmented high-rise buildings, fading in and out of frame as phantom shapes, expresses the uncertainty that had emerged from 1920 in response to radical proposals for a skyscraper city in Berlin. Whilst Weimar-era architects Peter Behrens

[40] Frisby and Whyte, *Metropolis Berlin 1880-1940*, p. 367.
[41] Jacobsen and Sudendorf, *Metropolis: ein filmisches Laboratorium*, p. 23;
Martino Stierli, *Montage and the Metropolis: Architecture, Modernity, and the Representation of Space* (New Haven: Yale University Press, 2018), p. 149.
[42] Hilde Heynen, *Architecture and Modernity: A Critique* (Cambridge, Mass.: MIT Press, 1999), p. 126.

and Bruno Möhring believed the modern skyscraper would generate offices and apartments in the city, urban planner Ludwig Hilberseimer suggested that high-rise buildings also offered a practical solution to 'traffic congestion' in Berlin.[43] Symbolically, the skyscraper promised to build 'paths to a new ascent' for the city, reflecting the 'undestroyed German will to re-emerge' after the First World War.[44] At the same time, many left-wing architects including Walter Gropius rejected this 'centralised approach to city planning', favouring a uniform row of housing blocks, which, unlike the monotonous Manhattan grid, warranted space and light for their residents.[45] Kracauer confronted the negative impact of a chaotic skyscraper city built of 'towering monsters', commenting in 1921 that the burgeoning metropolis was becoming an *Angstraum* or 'space of fear' with its architecture surging 'unexpectedly into the vertical'.[46] Lang's 'Vision' sequence chimes with Kracauer's warning. Presenting a polyfocal perspective that places the viewer central-frame, as if to inhabit the city space, the shot looks both down from the heights of a skyscraper and upwards from the dark street-canyons. The 'embodied' period viewer and architect could thereby grapple with the changing experience of modern space, and anticipate how skyscrapers, with their density and height, may indeed compromise the modern urban dweller.

Harbou's production stills of *Metropolis* provide further insight into the complex relationship between urban space and the Weimar city dweller. Photographs of carpenters building a model of Lang's upper city defamiliarise the filmic medium by

[43] Joseph Roth, 'If Berlin were to build skyscrapers: Proposals for easing the housing shortage, in *Metropolis Berlin 1880*-1940, ed. by Frisby and Whyte, pp. 332-333 (p. 333);
Hake, *Topographies of Class*, p. 130.
[44] Neumann, 'The Urbanistic Vision', p. 150.
[45] Statements accusing skyscrapers in Manhattan of depriving people of light and air had resulted in the 1916 Zoning Resolution to limit the height of new buildings. Neumann, 'The Urbanistic Vision', p. 151.
[46] Ibid, p. 149;
Siegfried Kracauer, 'Ein paar Tage Paris', Schriften 5, ed. by Inka Mülder-Bach (Frankfurt am Main: Suhrkamp, 1990), p. 298. Quoted in Hake, *Topographies of Class*, p. 15.

revealing the cinematic 'tricks' behind the on-screen architecture (Figs. 10, 16-17).[47] As independent images, the stills are, in essence, photomontages – composite shots made up of 'real' people placed within a 'fake' city. The glossy photographic surface seals the image, presenting its disparate parts as a seamless print. Yet the curious juxtaposition of carpenters and city model creates an overall image more disjointed than cohesive. As critic Thomas Gaetgens suggested, the use of photomontage powerfully conveys how the 'human being suffocates in the impenetrable congestion of buildings and bridges' in the rapidly changing city.[48] Harbou's visually disparate photographs emblematise the dislocation between the city dweller and his living space due to the constant fluctuation of urban stimuli. Such observations parallel those of Simmel, who discussed how individuals sought recognition to survive the relentlessly fast pace of the Weimar metropolis.[49] Lang's carpenters, too, appear to be 'consumed' by the looming city, of which the photograph has rendered them 'inhabitants', their seemingly bodiless heads severed by towers and overhead walkways (Fig. 10). The carpenters, in deviating from the socialist utopian notion of people as the 'organic members' of buildings, are, like the Weimar city dwellers, thus forced to 'compete' with their architectural surroundings.[50]

The 'city scenes' depicted in *Metropolis* production stills render the objective urban experience in Weimar Berlin visible and comprehensible. Simmel identified how 'the solitariness' of the German city dweller was 'resolved into togetherness' due to a shared condition – anonymity.[51] The carpenters in Harbou's stills, dressed in matching

[47] Reports illustrated with production stills taken by Horst von Harbou were published from 1925 in trade journals such as *Mein Film*, to create interest in the film before its release in 1927. Bachmann and Minden, *Fritz Lang's Metropolis*, p. 24.
[48] Maria Grazia Messina and Maria Mimita Lamberti, *Metropolis: La Città Nell'immaginario Delle Avanguardie 1910-1920* (Turin: GAM Galleria Civica d'Arte Moderna e Contemporanea Torino, 2006), p. 319.
[49] Ibid, p. 318.
[50] Barbara Miller Lane, *Architecture and Politics in Germany* (Cambridge, Mass.: Harvard University Press, 1968), p. 49.
[51] Georg Simmel, 'The Sociology of Sociability', in *Simmel on Culture*, ed. by Featherstone and Frisby, pp. 120-130 (p. 121).

laboratory coats, are indeed only 'resolved into togetherness' through their mutual commission to construct the set. Similarly, the anonymous underground workers in *Metropolis* are united merely by their efforts to operate the machines that power Fredersen's city. The carpenters and workers are equally measured by their quantitative indifference, and not their qualitative difference. Film architecture highlights this objective reality, not only in its production process, but also within the filmic narrative. In the opening sequence of *Metropolis*, the austere and sober architecture is reminiscent of unadorned modernist housing. As the workers file into an elevator to return to their underground world, their homogenised, depersonalised nature mirrors the uniform high-rise blocks in the background (Fig. 18). In accordance with Kracauer's interpretation of the 'Mass Ornament', the workers' bodies move like automatons, in 'highly structured formation', blending with the abstract stylisation of the film architecture.[52] The workers become a quantifiable 'mass' manifesting in the seriality and multiplicity of shapes, described by Simmel as the 'mechanizing, mathematizing tendency' of modern life.[53]

The Aesthetic Boundaries of *Metropolis*

The boundaries between the real and filmic city were most discernably broken down in 1920s Berlin, when film advertising on the streets and premiere theatres externalised the urban fabric of *Metropolis*. During the 1927 opening of the film, the exterior and interior walls of the Ufa-Pavillon am Nollendorfplatz were 'covered with a gleaming silver coating', which glowed at night (Figs. 19-20).[54] Kracauer argued that the fictive world of *Metropolis* was exposed as being a mere illusion when juxtaposed with such scenes of 'real physicality' at the premiere.[55] I suggest, however, that the festive façade of the Ufa-Pavillon worked together *with* the film, prolonging the filmic illusion to

[52] Kaes, 'Metropolis: City, Cinema, Modernity', p. 150.
[53] David Frisby, 'Social Theory, the Metropolis, and Expressionism', in *Expressionist Utopias*, ed. by Benson and Dimendberg, pp. 88-111 (p. 101).
[54] Kaes, 'Metropolis: City, Cinema, Modernity', p. 148.
[55] Siegfried Kracauer, *The Mass Ornament: Weimar Essays*, trans. by Thomas Y. Levin (Cambridge; London: Harvard University Press), p. 328.

create a more immersive environment for the viewer. The 'brilliantly shimmering' theatre façade was not simply a decorative 'advertising gimmick', as suggested by Anton Kaes.[56] It was in fact part of a 'total artwork of effects' used to mimic the 'technologized movement' of film itself: a sequence of 'living images' that appeared and disappeared before the viewer in quick succession.[57] The scintillating metallic surface of the Ufa-Pavillon became as elusive as the filmic image. Indeed with the theatre's glittering façade, the urban space of Nollendorfplatz was imbued with the same formal qualities as Lang's fictional city: both being a visual display of light, shadow and space. In his earlier experiments with double-exposure photography in New York, Lang had similarly portrayed the 'multiple lights of Broadway' as a dazzling vision 'of motion, of action, of life, of light' (Fig. 20).[58] This experience informed his depiction of the tower blocks in the upper city of *Metropolis*, which, 'dissected into cones and cubes' by 'moving scythes of searchlights', were perceived in the same visual and formal terms as the theatrical spotlights on Broadway.[59]

Advertising display artists in Weimar Berlin capitalised on the growing association between urban and imaginary spaces promoted in 1920s film, using the power of light, like Lang, to construct a 'glamorous, beguiling and ultimately fictive world' in the public space of the theatre.[60] The Ufa-Pavillon thus became 'an extension of the movie set'.[61] Its night-time façade resembled the nocturnal appearance of the main street in *Metropolis*'s upper city, which, despite its fanciful visage, adheres to the 'import' of Americanism that had transformed Weimar Berlin into 'the new City of Light in Europe' (Figs. 21-22).[62] An illuminated Berlin was celebrated during the 1928

[56] Kaes, 'Metropolis: City, Cinema, Modernity,' p. 148.
[57] Ward, *Weimar Surfaces*, p. 166.
[58] Ibid, p. 101.
[59] Thea von Harbou, *Metropolis* (USA: Dover Publications, 2015), p.24.
[60] Anton Kaes, 'Metropolis: City, Cinema, Modernity', p. 148.
[61] Ibid, p. 148.
[62] An Paenhuysen, 'Berlin in Pictures: Weimar City and the Loss of Landscape', *New German Critique*, 109 (2010) 1-25, p. 5.

exhibition 'Berlin im Licht', in which city architecture incorporated electronic lighting to showcase the city as an international force of cultural modernity and technical advancement.[63] Light advertisement transformed both the real and fictive metropolises: the nondescript high-rise blocks depicted in the opening scenes of *Metropolis* become animated with flashing neon signs. Similarly, emboldened white lettering, '*Metropolis*: Ein Film von Fritz Lang', on the Ufa-Pavillon frontage, heralded the new age of film production in the German metropolis. The theatre signage established a link between Weimar urban space and the urban imaginary, by bringing Lang's fantasy world literally onto the streets of Berlin. The silver gong, featured in the film's reconciliation scene, was placed over the premiere theatre entrance to cement this association. When the gong appeared on-screen, the 'fiction [was] abolished' as the period viewer became aware of the gong's real-life presence.[64] Providing a final bridge between the world of *Metropolis* and Weimar urban space, the gong required viewers to take the filmic world with them into their own city and collective future as they left the theatre.

Film critic Barry Keith Grant interprets the style of *Metropolis* as being insistently 'closed', in that the 'frame of the screen totally defines the world inside as a picture frame does.'[65] The filmic image is not, however, so 'closed' that it excludes the world outside. For as Lang himself asserted, film is 'the art of our century, the art of the people.'[66] As a 'paradigmatic product of Weimar culture', *Metropolis* presents a series of reactions to the changing modern experience and urban developments that shaped this period.[67] Special effects and montage sequences transform Lang's fantastical urban utopia into a predominantly realistic, immersive city, which the viewer can temporarily 'inhabit'. Film architecture becomes a self-reflexive construct for communicating

[63] Frisby and Whyte, eds. *Metropolis Berlin 1880-1940*, p. 440.
[64] Müller, 'Babelsberg/ Babylon', in *Berlin Metropolis 1918-1933*, ed. by Peters, pp. 136-161 (pp. 143-144).
[65] Grant, *Fritz Lang: Interviews*, p. ix.
[66] Ibid, p. 8.
[67] Neumann, 'The Urbanistic Vision', p. 143;
Anton Kaes, 'Metropolis: City, Cinema, Modernity', p. 162.

pertinent themes, not only Weimar society's fascination with and anxiety about the modern skyscraper, but also the constructed nature of 1920s Berlin. Like the studio models built for Lang's film, Berlin had indeed 'fabricated itself' into a world-metropolis during the 1920s, compelled constantly to build and restructure.[68] Its urban fabric was a 'locus of alienation and disharmony', a fragmented constellation of buildings and people, as reflected in Harbou's production stills.[69] Whilst the moral resolution of *Metropolis* might affirm 'modified instrumental rationality', realism does not triumph over the imaginary in the case of the film's urban setting.[70] In remaining critically poised between the real and simulated city, *Metropolis* captures the urban imaginary and creative vision of an ever-expanding Weimar metropolis. Lang's flawlessly constructed cinematic landscape radically changed the treatment of architecture in Weimar film, with his creative legacy inspiring new approaches to urbanism in modern cities of the future.

[68] Martin Wagner and Adolf Behne, 'The New Berlin – World City', in *Metropolis Berlin 1880-1940*, ed. by Frisby and Whyte, pp. 347-349, (p. 348).
[69] Kaes, 'Sites of Desire: The Weimar Street Film', p. 26.
[70] Kaes, 'Metropolis: City, Cinema, Modernity,' p. 162.

Archival Sources

Deutsche Kinemathek – Museum für Film und Fernsehen, Berlin, Photographic Archive Collection

—— Berlin, Graphics Archive Collection

Harbou, Thea von, *Metropolis*, Screenplay, SDK 12268, Owned by Gottfried Huppertz (Berlin: Archiv der Deutschen Kinemathek – Museum für Film und Fernsehen, c. 1925)

Bibliography

Antonelli, Paola and Romana Schneider, 'Metropolis in vitro (The City in a Test Tube)', *Domus*, 717 (1990), 74-80

Arns, Alfons, and Hans P. Reichmann, *Otto Hunte: Architekt für den Film* (Frankfurt am Main: Deutsches Filminstitut, 1996)

Bachmann, Holger and Michael Minden, eds. *Fritz Lang's Metropolis: Cinematic Visions of Technology and Fear* (Rochester, N.Y.: Camden House, 2000)

Barber, Stephen, *The Walls of Berlin: Architecture and Oblivion* (Elektron Books, 2013)

Benson, Timothy and Edward Dimendberg eds. *Expressionist Utopias: Paradise, Metropolis, Architectural Fantasy* (Berkeley: University of California Press, 2001)

Berlin: Die Sinfonie der Großstadt, dir. by Walter Ruttmann, Fox-Europa Film Production, 1927 (Chatsworth, CA.: Distributed by Image Entertainment, c. 1999).

Brockmann, Stephen and Thonas W. Kniesche, eds. *Dancing on the Volcano: Essays on the Culture of the Weimar Republic* (Columbia: Camden House, 1994)

Brownlow, Kevin and David Gill, *The Unchained Camera* (United Kingdom; Germany: Photoplay Productions, 1995)

Cinemateque Française Paris (Paris) <https://cinemage.bifi.fr/pages/intro.php> [accessed 3 February 2019]

'Das Film-Modell', *Mein Film* 28, 1926, pp. 1-28

Deutsche Kinemathek – Museum für Film und Fernsehen, *Fritz Langs Metropolis* (Munich: Belleville, 2010)

Die Reise nach *Metropolis*, dir. by Artem Demenok and Loy W. Arnold (Eureka Entertainment, 2010) [on DVD]

Elsaesser, Thomas, 'Time, Space and Causality: Joe May, Fritz Lang and the Modernism of German Detective Film', *Modernist Cultures*, 5 (2010), 79-105

Faure, Elie, *The Art of Cineplastics*, trans. by Walter Pach (Boston: the Four Sea Company, 1923)

Ferriss, Hugh, *The Metropolis of Tomorrow* (New York: Ives Washburn, 1929)

Featherstone, Mike and David Frisby, eds. *Simmel on Culture: Selected Writings* (London: Sage Publications, 1997)

Gehler, Fred and Ullrich Kasten, *Fritz Lang: Die Stimme von Metropolis* (Berlin: Henschel, 1990)

Grant, Barry Keith, ed. *Fritz Lang: Interviews*, Conversations with Filmmakers Series (Jackson: University Press of Mississippi, 2003)

Hake, Sabine, *Topographies of Class: Modern Architecture and Mass Society in Weimar Berlin* (London: University of Michigan Press; Eurospan distributor, 2008)

—— *German National Cinema* (London; New York: Routledge, 2002)

Harbou, Thea von, *Metropolis* (USA: Dover Publications, 2015)

Haxthausen, Charles W., and Heidrun Suhr, eds. *Berlin: Culture and Metropolis* (Minneapolis; Oxford: University of Minnesota Press, 1990)
Heynen, Hilde, *Architecture and Modernity: A Critique* (Cambridge, Mass.: MIT Press, 1999)
Hilberseimer, Ludwig, *Metropolisarchitecture and Selected Essays*, ed. by Richard Anderson, Columbia University GSAPP Sourcebook Series, II (New York: GSAPP Books, 2015)
Jacobsen, Wolfgang and Werner Sudendorf, *Metropolis: ein filmisches Laboratorium der modernen Architektur* (Stuttgart; London: Edition Axes Menges, 2000)
Kardish, Lawrence, *Weimar Cinema, 1919-1933: Daydreams and Nightmares* (New York: Museum of Modern Art, 2010)
Kettelhut, Erich, *Erich Kettelhut: Der Schatten Des Architekten*, ed. by Werner Sudendorf, (Munich: Belleville, 2009)
Kracauer, Siegfried, *The Mass Ornament: Weimar Essays*, trans. by Thomas Y. Levin (Cambridge; London: Harvard University Press)
Lane, Barbara Miller, *Architecture and Politics in Germany, 1918-1945* (Cambridge, Mass.: Harvard University Press, 1968)
Leedom, Sara, 'The Schüfftan Process', *Metropolis – A Case Study*, 2007, <http://metropolisvixfx.blogspot.com/2007/10/schufftan-process.html> [accessed 6 February 2019]
McGilligan, Patrick, *Fritz Lang: The Nature of the Beast* (Minneapolis: University of Minnesota Press, 1997)
Mendelsohn, Erich, *Amerika: Bilderbuch eines Architekten* (Berlin: Verlag Rudolf Mosse, 1928)
Messina, Maria Grazia and Maria Mimita Lamberti, *Metropolis: La Città Nell'immaginario Delle Avanguardie 1910-1920* (Turin: GAM Galleria Civica d'Arte Moderna e Contemporanea Torino, 2006)
Metropolis, dir. by Fritz Lang, 1927, Ufa Productions (Reconstructed & restored version on DVD: Eureka Entertainment, 2010)
Metropolis Special Effects*, YouTube*, 2008, <https://www.youtube.com/watch?v=84BcdT8senc> [accessed 2 February 2019]
Molina-Siles, Pedro, 'Drawing Metropolis: The Architectural Dream of Fritz Lang', *EGA: revista de expresión gráfica arquitectónica*, 29 (2017), 190-199
Mullin, John Robert, 'Ideology, Planning Theory and the German City in the Inter-war Years', *Town Planning Review,* 53 (1982), 115-130
Neumann, Dietrich, ed. *Film architecture: Set Designs from Metropolis to Blade Runner* (Munich; New York: Prestel, 1999)
Paenhuysen, An, 'Berlin in Pictures: Weimar City and the Loss of Landscape', *New German Critique*, 109 (2010) 1-25
Peters, Olaf, ed. *Berlin Metropolis 1918-1933* (Munich: Prestel, 2015)
Pommer, Richard, et al. *In the Shadow of Mies: Ludwig Hilberseimer, Architect, Engineer, Educator, and Urban Planner* (New York: the Art Institute of Chicago in Association with Rizzoli International Publications, 1988)
Ramirez, Juan Antonio and Domenec Font, Laberintos del cine (Labyrinths of the cinema), *Arquitectura viva*, 17 (1991) 38-41
Schuldenfrei, Robin, *Luxury and Modernism: Architecture and the Object in Germany 1900-1933* (Princeton; Oxford: Princeton University Press, 2018)
Scott, Kaia Jeanne, 'Critical Destructions: Kracauer and Benjamin's Weimar Writings on Architecture, Film, and the Cultural Public Sphere' (MA thesis, Simon Fraser University, 2007)
Sharp, Dennis, ed. *Glass Architecture by Paul Scheerbart and Alpine Architecture by Bruno Taut* (S.I.: Praeger Publishers, 1972)

Sobchack, Vivian, *Carnal Thoughts: Embodiment and Moving Image Culture* (Berkeley: University of California Press, 2004)
Stierli, Martino, *Montage and the Metropolis: Architecture, Modernity, and the Representation of Space* (New Haven: Yale University Press, 2018)
Ward, Janet, *Weimar Surfaces: Urban Visual Culture in 1920s Germany* (Berkeley: University of California Press, 2001)
Whyte, Iain Boyd, ed. *Modernism and the Spirit of the City* (London; New York: Routledge, 2003)
Whyte, Iain Boyd and David Frisby, eds. *Metropolis Berlin: 1880-1940* (Berkeley: University of California Press, 2012)

List of Illustrations

Figure 15. Fritz Lang, ‘Vision’ montage sequence (00:24:06), *Metropolis*, 1927, Ufa Productions, Reconstructed & restored version by Eureka Entertainment [on DVD], 2010 (Photo: Eureka Entertainment)

Figure 16. Horst von Harbou, Carpenters constructing Upper City model II, 1925/26, photograph, Deutsche Kinemathek – Museum für Film und Fernsehen, Archive number: F992_381 (Photo: Photographic archive, Deutsche Kinemathek)

Figure 17. Horst von Harbou, Carpenters constructing Upper City model III, 1925/26, photograph, Deutsche Kinemathek – Museum für Film und Fernsehen, Archive number: F992_226 (Photo: Photographic archive, Deutsche Kinemathek)

Figure 18. Fritz Lang, Workers in elevators (00:05:37), *Metropolis*, 1927, Ufa Productions, Reconstructed & restored version by Eureka Entertainment [on DVD], 2010 (Photo: Eureka Entertainment)

Figure 19. ‘Ufa-Pavillon – Nollendorfplatz’, Cinema Treasures, 1927, photograph, Hulton Archive and Getty Images (Photo: Hulton Archive/ Getty Images) <http://cinematreasures.org/theaters/11286> [accessed 3 February 2019]

Figure 20. Alex Stocker, Ufa-Pavillon, Nollendorfplatz, ‘Metropolis: Premiere release screenings 1927-8’, 1927, vintage gelatin silver print on strong chamois paper <https://www.uow.edu.au/~morgan/metrom5.htm> [accessed 3 February 2019]

Figure 21. Fritz Lang, *New York: Broadway bei Night*, 1924, photograph (Photo: Erich Mendelsohn, *Amerika: Bilderbuch eines Architekten*, 1928, p. 131)

Figure 22. Fritz Lang, Upper city by night (01:59:26), *Metropolis*, 1927, Ufa Productions, Reconstructed & restored version by Eureka Entertainment [on DVD], 2010 (Photo: Eureka Entertainment)

Illustrations

Figure 1. Erich Kettelhut, *Daybreak*, 1925, oil on paper, 54.4 x 40 cm, Deutsche Kinemathek – Museum für Film und Fernsehen, Archive number: F992_61

Figure 2. Fritz Lang, Daybreak film sequence (00:03:01), *Metropolis*, 1927, Ufa Productions, Reconstructed & restored version by Eureka Entertainment [on DVD], 2010

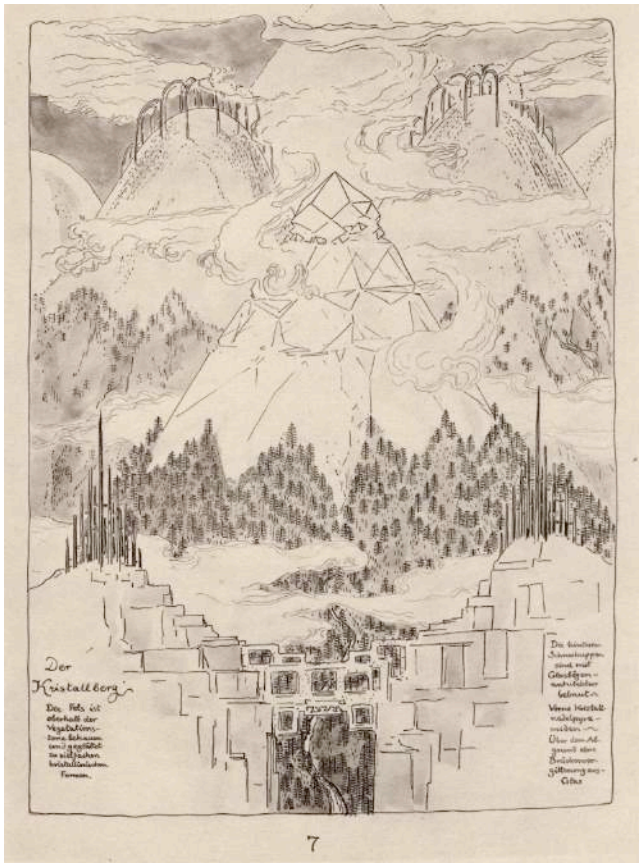

Figure 3. Bruno Taut, *Der Kristallberg*, 1919

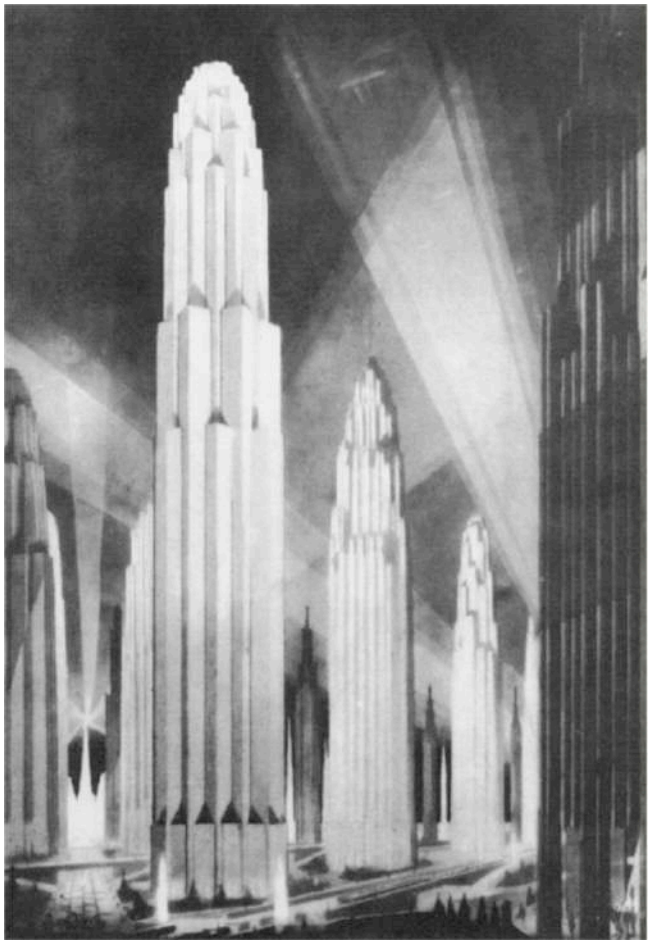
Figure 4. Hugh Ferriss, *Verticals on Wide Avenues*, 1929

Figure 5. Fritz Lang, Architect as visionary (00:53:17), *Metropolis*, 1927, Ufa Productions, Reconstructed & restored version by Eureka Entertainment [on DVD], 2010

Figure 6. Fitz Lang constructs studio model of Tower of Babel, 1926, photograph, Deutsches Film Museum – Deutsches Filminstitut, Frankfurt am Main

Figure 7. Fritz Lang, Marian-like apparition (00:54:10), *Metropolis*, 1927, Ufa Productions, Reconstructed & restored version by Eureka Entertainment [on DVD], 2010

Figure 8. Fritz Lang, Schüfftan Process (02:13:38), *Metropolis*, 1927, Ufa Productions, Reconstructed & restored version by Eureka Entertainment [on DVD], 2010

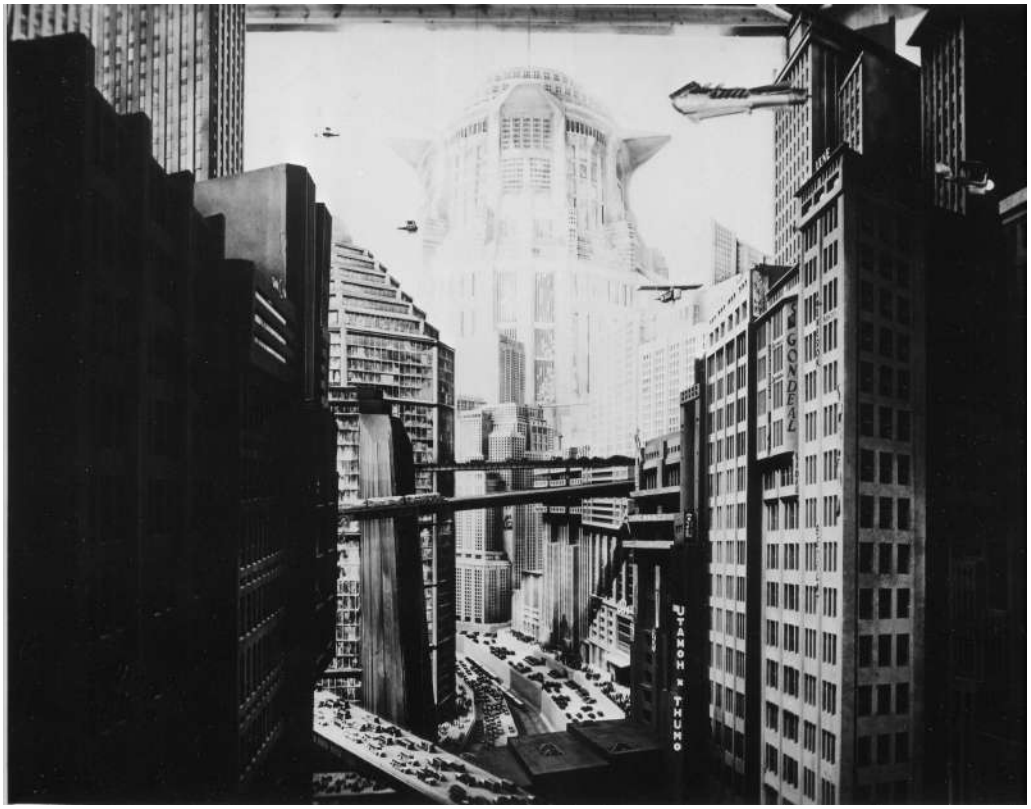

Figure 9. Horst von Harbou, Studio model of the Upper City, 1925/26, photograph, Deutsche Kinemathek – Museum für Film und Fernsehen, Archive number: F992_87

Figure 10. Horst von Harbou, Carpenters constructing Upper City model I, 1925/26, photograph, National Film and Sound Archive, Hans Taussig Collection

Figure 11. Fritz Lang, Upper city traffic (00:18:23), *Metropolis*, 1927, Ufa Productions, Eureka Entertainment, Reconstructed & restored version by Eureka Entertainment [on DVD], 2010

Figure 12. Horst von Harbou, Babelsberg City, 1925/26, photograph, Cinémathèque Française Paris, Archive Number: F992_890

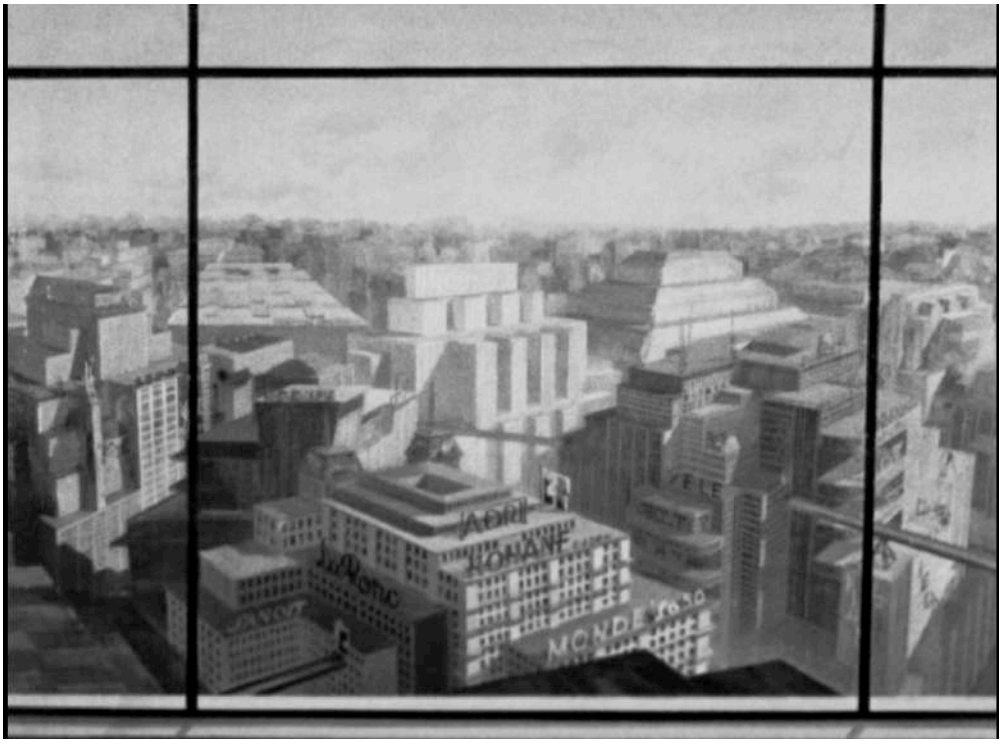

Figure 13. Fritz Lang, Comprehensive city view (00:24:01), *Metropolis*, 1927, Ufa Productions, Reconstructed & restored version by Eureka Entertainment [on DVD], 2010

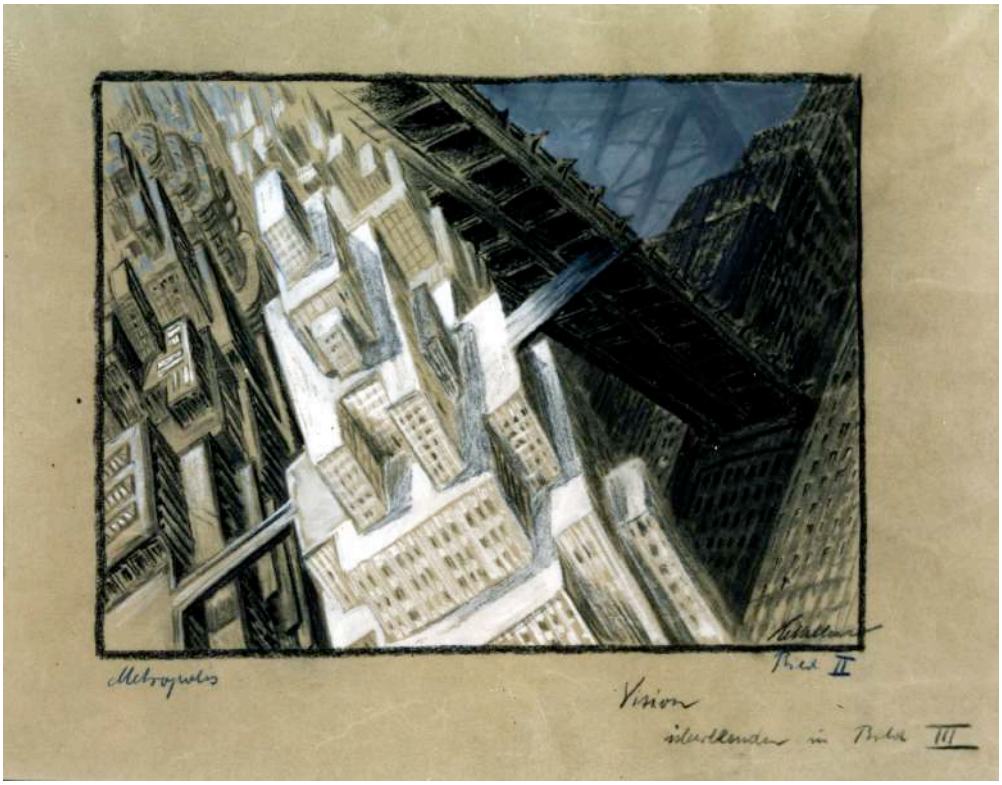

Figure 14. Erich Kettelhut, *Vision II*, 'Blend into image III', Study drawing for *Metropolis* 'Vision' sequence, 1925/26, chalk and watercolour on paper, 64 x 49 cm, Cinémathèque Française Paris

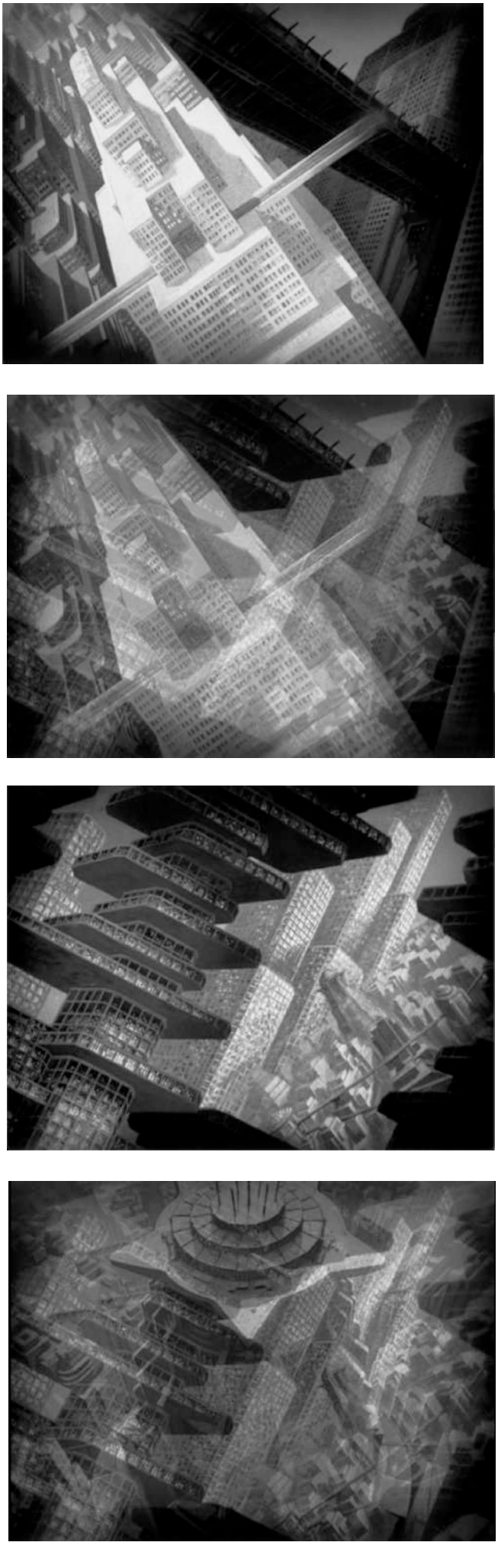

Figure 15. Fritz Lang, ‘Vision’ montage sequence (00:24:06), *Metropolis*, 1927, Ufa Productions, Reconstructed & restored version by Eureka Entertainment [on DVD], 2010

Figure 16. Horst von Harbou, Carpenters constructing Upper City model II, 1925/26, photograph, Deutsche Kinemathek – Museum für Film und Fernsehen, Archive number: F992_381

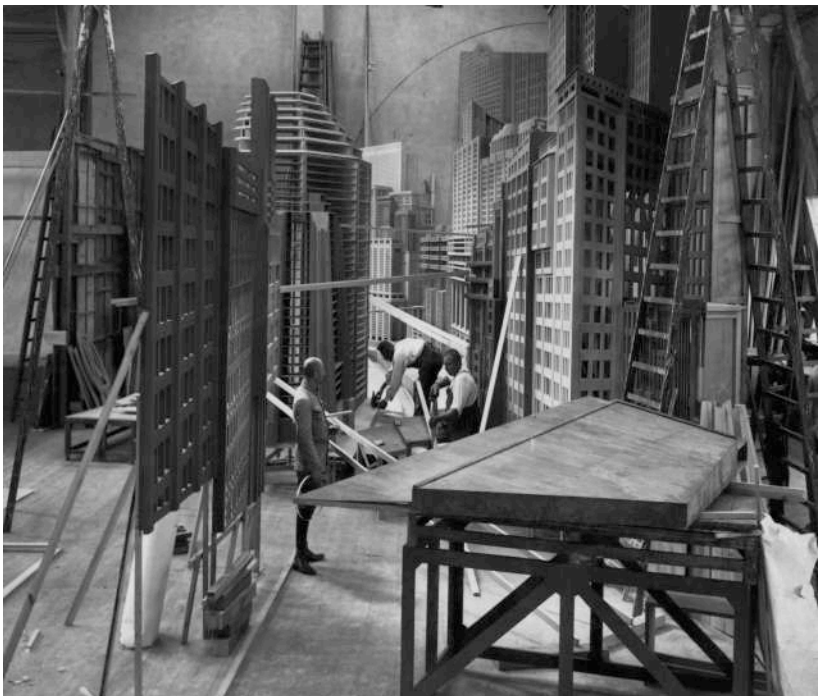

Figure 17. Horst von Harbou, Carpenters constructing Upper City model III, 1925/26, photograph, Deutsche Kinemathek – Museum für Film und Fernsehen, Archive number: F992_226

Figure 18. Fritz Lang, Workers in elevator (00:05:37), *Metropolis*, 1927, Ufa Productions, Reconstructed & restored version by Eureka Entertainment [on DVD], 2010

Figure 19. 'Ufa-Pavillon – Nollendorfplatz', Cinema Treasures, 2014, photograph, Hulton Archive and Getty Images


Figure 20. Alex Stocker, Ufa-Pavillon, Nollendorfplatz, 'Metropolis: Premiere release screenings 1927-8', 1927, vintage gelatin silver print on strong chamois paper

Figure 21. Fritz Lang, *New York: Broadway bei Night*, 1924, photograph

Figure 22. Fritz Lang, Upper city at night (01:59:26), *Metropolis*, 1927, Ufa Productions, Reconstructed & restored version by Eureka Entertainment [on DVD], 2010