

1.

Before saying anything else I should explain something about my intention, which is to analyse the setting of a science fiction novel using the particular tools at my disposal, which are those of an architect, and to some extent an architectural historian. As it happens, the early 1920s, which is where this happens, is a period during which the boundaries between a real, and a speculative, or fantastical, proposal are particularly indistinct, and in surveying the broader European field you encounter many architects exploring fictional, imaginative and narratively driven scenarios, and at least one writer moving in the other direction, from fantasy, into architectural manifestos, and built collaborations.

The setting is OneState (*Yedinoe Gosudarstvo*) — the 30th century glass city which is the location of Yvegeny Zamyatin's 1921 science fiction 'We'. In OneState, the problems of social conflict and unhappiness have been solved through the elimination of freedom, and a ruthless equalisation of identity. From within their identical rooms, the uniformed inhabitants survey a transparent and ordered city; in which each citizen's work and leisure activities have been calculated and assigned in advance according to the principles of Frederick Winslow Taylor; whose theories of industrial productivity have attained, in this far future, a status akin to divine law. Even leisure activities are synchronised, with citizens strolling simultaneously in formation in time to the rhythms of the Music Factory.

2.

The glass material of OneState has frequently been read as a cognitive reflection of this fantasy of totalitarian social order and surveillance,¹ and by implication as a satirical condemnation of Soviet Utopianism.

However, readers familiar with Zamyatin's other writing and political views have tended to understand OneState as more complex critique of, among other things, post-revolutionary stasis and the canonisation of revolutionary ideals as dogma, within which the city and its wild exterior spatialise and counterpose various dilemmas — between freedom and happiness, revolution and progress, reason and spirit — as 'possible worlds' or dialectical processes.²

The suggestion I hope to develop here is that such tensions exist, not only between settings — in this case the city and its exterior, but immanently within OneState's own form and materiality, in the ambiguous material quality of glass, and the spatial ordering of the city's ground plan and enclosure. But this physicality is paralleled by an equally unresolved metaphysicality, which can connote both stasis, an oppressive eternity, and the potential disruption of otherworldly insight.

¹ Early readers in the West, marking the novel's proximity both, on the one hand to Stalin (who was persuaded to grant Zamyatin's request to emigrate in 1931) and on the other to George Orwell, who reviewed the book in *Tribune* in 1946, tended to understand this fantasy as a satirical condemnation of Soviet Utopianism.

² suvin, Wegner

3.

The specific currency of the glass city image in Russia follows Nikolai Chernyshevsky's *What is to be done?* (1863) in which the 'Crystal Palace' appears as a dream-space of utopian socialist community. But elsewhere in Europe, particularly in Germany, the meaning of glass within a Utopian futurity remained significantly less determined. In this sense, the contradictions of glass in OneState come to mirror deeper tensions within the broader field of European avant-garde art and architecture.

4.

In the text, glass as the instrument of OneState ideology operates through the quality of transparency. The whole interior and exterior of the city is subject to continuous and panoptical surveillance; a person can see into every building they pass; and on the interior, from one room to the next; up into the spaces above them and through the floors and staircases they walk and stand on. Its virtue as material is rational and scientific. Glass, as the protagonist and narrator D—503 himself enthusiastically relates, is technologically superior, resistant to damage, miraculously precise and apparently ageless.

The identification between the material and the society also holds in the reverse condition, where those few recalcitrant elements of Old World atavism still latent in OneState society are identified with the quality of opacity. For example — as a concession to a stubborn and vestigial prudishness, citizens are allowed to lower the blinds of their rooms during their mandated Sex Hour, and the concealment afforded by these lowered screens becomes a recurring metaphor for the disturbing and transgressively-veiled subjectivity of the narrator's obsessively desired partner — the subversive I-330. D himself speculates, early on, that the continuing development of OneState will eventually enable the removal of even these few remaining elements — glass — transparent and unchanging — thus expresses the *telos* of OneState toward order as crystallisation.

However, at a narrative level glass is the lens through which the protagonist's contradictions are magnified and brought into conflict with the society. Paradoxically, D's susceptibility to rebellion is not a result of alienation or disenchantment, but, if anything, to an excess of enthusiasm. It is his poetic delight in sight of the city that leads him into the contemplation of prismatic and refractive light effects caused by depth and layering. These sights create, as it were, a perturbation in the apparent fabric of reality, expressing an ineffability, or a more expansive reality, incompatible with the strictly closed world he inhabits. At such times, D says, "you can see into the blue depth of things...[and discern] their hitherto unsuspected, astonishing equations."³

These episodes are stages in a process of romantic awakening, in which glass becomes a window, both into a deeper world of metaphysical insight, and a more expansive celestial unity. The capacity of the glass city to

³ we p5

capture and refract atmospheric conditions becomes ever more insistent; glass walls and sky are conflated — becoming “walls fashioned out of bright air,”⁴ taking on the oranges and pinks of dawn and dusk, and in one memorable moment, dissolving entirely into a bank of fog, leaving the occupants of the buildings hanging in space like “particles in solution.”⁵

It is through D’s receptiveness to aesthetic experience that he is drawn away from a reflexive identification with the norms of the collective. Glass, in this sense, functions as a sublime lens, foregrounding his melancholy distance from everyday life, and leading him toward the necessity of conflict. His infatuation with I—330 deepens, he develops a soul, discovers the world outside the city and is drawn towards rebellion.

6m30

5.

A later essay — ‘On Literature, Revolution, Entropy and other matters’ (1923) — locates this transformation within Zamyatin’s broader political thought. In the text, Zamyatin describes revolution and stasis as cosmically opposed qualities, identified with energy and entropy respectively. After the volcanic heat of the revolutionary struggle, the surface of the field of contestation — whether science, art or society — cools into dogmatic rigidity. In Zamyatin’s schema, it is the work of revolutionaries and heretics, fired by romantic impulsiveness, to detonate this rigidity and create the potential for future growth, in an infinitely repeated process reaching into the far recesses of an infinite future. The ambiguity of glass in ‘We’ thus contains both sides of the cosmic dyad — as both a crystallisation of entropic coolness and stasis, and a lens focussing energy to the point of ignition.

6.

It is this tension that connects the fantasy of ‘We’ with the much broader field of modern architecture, in which the same polarity — between glass as organising and disrupting, rational and romantic — plays out over the course of the 1920s. In a sense the narrative movement in ‘We’ captures in reverse a broader process of de-romanticisation of glass; particularly evident in the tension between the *Activist* and *Neue Sachlichkeit* tendencies in contemporary Germany.

By the late 1920s the primary meaning of glass had apparently become more or less fixed as a rational element of industrialised and systematic construction, and as a formal medium of transparency or reflection. Arthur Korn, writing in 1929, describes how glass enables the outside wall to disappear. Its primary characteristic, he stresses, is the opening up of view deep into the plan, and, “compared with this special and

⁴ we p19

⁵ p69

individual property, all other effects of glass — colorful, brilliant, and stimulating — are of secondary importance.”⁶

In such a reading, glass’s function in the creation of new industrial metropolis can be expressed in terms of specific rational affordances, technical capacities which enable the lucid expression of internal organisation within a clear and logical schema. But the distance of travel over the course of the 1920s can be discerned in a comparison of these two proposals, both by Mies van Der Rohe, both for Berlin, from 1921 and 1928 respectively.

In the latter scheme (on the right) for Alexanderplatz, the dematerialisation of the outer wall is of a resolutely *sachlich* character, revealing in a matter-of-fact way the striation of the floor slabs, the voids of the floor spaces inbetween — the rational stacking of orderly, rectangular spaces. At the same time, the formal closure of the glass membrane enables the projection of an absolute, exact and perfect abstractness — what Manfredo Tafuri and Francesco Dal Co characterise as its ‘antidescriptive’ quality. Internalising the logic of the capitalist metropolis, the buildings become, they argue, a “pure representation of the negative” in whose confrontation with the site of the 19th century is revealed “nothing but their own void”.⁷

7.

By contrast, the earlier image, from 1921, for Friedrichstrasse, voices its confrontation with the city in an altogether different register. Between the darkly shaded foreground and the icy sublimity of the cliff-like tower, can be envisaged the gap between the industrial metropolis of the immediate post-war, and the Activist⁸ or Expressionist shock, revulsion, and demand for transformation. Evanescent out of the degraded fabric of the everyday, the glass tower is an ambiguous image — both of material and technological futurity, and of a spiritually reawakened and transcendent New Age.

8.

A fixation on glass as a carrier of transcendent purpose and societal renewal had intensified in Germany during the early years of the previous decade. A central figure is the writer Paul Scheerbart, author of a series of fantasy novellas and an architectural manifesto, *Glass Architecture* (1914). In the shift from brick to glass culture, Scheerbart argued, the war, unhappiness, disease and so on attendant on the former, would give way to a society united in aesthetic delight and unified creative endeavour, a world of glass palaces and cities, crisscrossed by airships and planes. In Scheerbart’s fantasies, glass is seldom a carrier of neutral transparency, but rather a material with the potential for vivid and surprising effects. Coloured glass is juxtaposed with crystalline and refractive effects, cut and crystal glass as well as opalescent or opaque tiles,

⁶ Arthur Korn essay

⁷ modern architecture 154 157

⁸ iain Boyd white

cast elements, mosaics, mirrors, polished metal and water — to create a pitch of visual delight which transforms the both individual subject and society.

9.

The project of depicting this new world would occupy the members of the the Glass Chain group, constellated around its leader Bruno Taut, up until the 1920s. In *Alpine Architecture* (1917-19) Taut shows vast, landscape-scale projects, which span the alps from side to side, erupting into towers, crossing valleys, crown the tips of the peaks with shards of ruby.

10.

The ambiguous symbolism of the crystal image — between stasis and transcendence — is revealed. On the one hand, the organic multiplication of forms, and the unearthly lightness of the material — gestures toward a profound, all encompassing transformation of the material conditions of life. Taut elsewhere would argue for the destruction of existing cities, and the resettlement of the population on the land within a new ecology of dwelling.

11.

On the other, in these images what seems to have been discovered is only the already-familiar Chernishevskyan image, in which the cathedral-like idealisation of the collective work points towards a Carlylean nostalgia for prebourgeois (not to say medieval) virtue within Activism, which impells the fantasy toward its own form of stasis.

12m30

12.

I'd like to briefly shift scale, in this final part of the paper, to an analysis of the city of OneState as a whole. Although never explicitly identified as such, the overall plan of the city is strongly implied to be circular — a regular grid, structured around communal facilities which are figured as vast primary geometries — globes, hemispheres, cubes — and enclosed by the mysterious 'Green Wall'. This sheer and impenetrable outer edge is named, not for its own inherent colour but rather for thick wild vegetation heaped up against its exterior. The combination of geometries — the regular and extensible grid inscribed within the closed and absolute limit of the circle — create a clear link between OneState and a deeper history of Utopian urbanity stretching back to the Renaissance.

The circular city plan, as Colin Rowe notes in *The Architecture of Utopia* (1959), arose during the 15th century out of the congruence between a number of theories — among them a neoplatonist inclination to

shape the ideal city in the form of the cosmos.⁹ Such historic precedents were far from unknown in early 20th c Russia. The Russian translation of one in particular, the *The City of the Sun*¹⁰ written by the Dominican friar Tommaso Campanella in 1602, was said to have reached Lenin, and its painted walls, it has been claimed, helped inspire his 1918 initiative for ‘monumental propaganda’ in Moscow and St Petersburg.¹¹

13. (Leonidov)

The walls — shown here in Ivan Leonidov’s paintings — ring the seven concentric levels of the city, and schematise, in descending order and in the manner of a visual encyclopedia, the essential elements of mathematics, the cosmos, the natural world, technology, as well as a pantheon of great heroic figures.¹² The painted walls educate the young people of the city, functioning as a spatial template for the memory palace to be cultivated by them, through the use of the ‘art of memory’.¹³

14.

Aspects of the quasi-monastic social order of *The City of the Sun*, which include rigorous equality, the community of property, centrally organised division of labour, and in particular the state direction of sexual reproduction — are echoed in the norms of OneState. And while the painted walls themselves have no equivalent in the abstract form of the glass city, this definitive ordering and spatialisation of knowledge finds a resonance in the presentation of OneState as the solidification of dogma. Between the painted walls — each circuit of which is named for one of the planets, the minds of its citizens, who create their own mental model of this spatial episteme, and the cosmos itself, Campanella is attempting to design a harmonious, comprehensive, and final alignment. Social, ideological and epistemological closure are generated co-extensively within a unified spatial order.

It is in the light of this example that I want to conclude by considering one of the strangest and most striking encounters in the novel. Walking next to the wall one day, looking through at the wild vegetation beyond, D-503 finds himself face to face, through the glass, with a wild animal looking in at him.

15.

⁹ Rowe notes three overlapping justifications — a Platonically derived image of cosmic order, a humanist understanding of the circular form as innately ‘natural,’ and a well-established practical appreciation of its utility in defensive fortification. Having thus been established, and in spite of the vitiation of its original philosophical underpinnings, the circular form then remained an archetypical image of utopian order until the early 20th century.

¹⁰ Campanella written about by e.g. Alexander Genkel in 1906, a maverick botanist and polymath (from *Political Thought From Machiavelli to Stalin: Revolutionary Machiavellism* By E. A. Rees)

¹¹(*Revolutionary Dreams: Utopian Vision and Experimental Life in the Russian ...* By Richard Stites p. 88)

¹² city of the sun 5-7

¹³ (ref Francis Yates) Giordano Bruno last chapter

“Through the glass, dim and foggy, the blunt muzzle of some beast looked at me, its yellow eyes insistently repeating one and the same thought, incomprehensible to me. We looked at each other for a long time — through those shafts connecting the surface world to that other beneath the surface. And then a little thought wormed its way into my head: ‘And what if yellow-eyes, in his stupid, dirty pile of leaves, in his uncalculated life, is happier than us?’”¹⁴

This scenario exposes the paradox of the Green wall within the overall schema. The wall simultaneously encloses and absolutises the Utopian order, but at the same time dramatises, and undermines, this very act of boundary-setting. The Green Wall not only enables a level of visual proximity to the exterior, but apparently magnifies it, creating an impression of ‘a savage wave of roots, flowers, branches and leaves.’

It is as if, in this moment, and in an apparently miraculous way, the very operation of repression at work in the maintenance of ideology has become visible. Transparency, as the technological instrument of OneState, has, at this outermost edge of its domain, become contradictory. In this sense, as I hope I have shown, the identification of glass as ideologically or politically aligned or determinate breaks down entirely, and on the contrary, suggests an image of technology as capable both of reinforcing, and of perturbing, the powers or agents which are attempting to deploy it.

¹⁴ we (90-91)