Special Issue: Radical Verticality: Critical explorations of high-rise urbanism

Urban Studies

Introduction: Verticality, radicalism, resistance

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Abstract

In recent decades urban scholarship has witnessed a 'vertical' or 'volumetric' turn that has advanced understandings of the multi-modal power asymmetries cutting through and organising urban space. Yet, this volumetric scholarship often remains locked into binary critiques - of success/failure, inclusion/exclusion, luxury/abjection, dispossession/accumulation, arborescent/rhizomatic, horizontal/ vertical. This special issue tinkers with the limitations of these (unwittingly) binary urban geometries and volumetrologies - material as well as metaphorical ones. By building the etymological opposition of 'the vertical' with 'the radical' into the title of the volume (via the Latin root radix, meaning 'root'), we seek to make the radical itself work with geometric and morphological associations. The papers in this special issue proffer diverse ethnographic, geographic and conceptual material for considering and theorising urban verticality in concert with rather than in opposition to its incumbent horizontalisms, diagonals, curls, zigzags and scattered planes. As we completed work on the special issue, the horrors of russia's full-scale invasion of Ukrainian territory played out before our eyes. Accordingly, we make use of the introduction to reflect upon the insight that the war in Ukraine brings to bear on the intersection between domains of the urban, the vertical and the radical in the fraught, tense, vicious, fragile - but resistant - urban worlds of today. In doing so, we seek not only to render more clearly visible the violent effects of power verticals on lives, worlds and cities, but also to find seeds of hope in emergent, insurgent forms of (vertical as well as horizontal, and neither vertical nor horizontal) resistance.

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Keywords

horizontal, radical, resistance, Ukraine, urban warfare, urbicide, vertical

摘要

近几十年来,城市学术研究经历了向"垂直"或"容积"的转向,加深了对贯穿和组织城市空间的多模式权力不对称的理解。然而,关于容积的学术研究却仍然经常陷入二元批评—成功/失败、包容/排斥、奢侈/落魄、剥夺/积累、树状/根茎—很少有人涉及水平/垂直。本期特刊克服了这些(无意的)二元城市几何理论和容积计量理论的局限性—物质的和 隐喻的局限性。通过将"垂直"与"激进"的词源对立放到本卷的标题中(拉丁语词根"radix"意思是"根"),我们试图使"激进"本身与不同的几何和形态学关联一起发挥作用。本期 特刊中的论文提供了不同的人种志、地理学和概念材料,用于考虑城市垂直性并将其理 论化,使其与现有的水平主义、对角线、卷曲、之字形和分散的平面等概念相协调,而 不是相对立。我们完成特刊的工作之时,俄罗斯全面入侵乌克兰领土的恐怖事件就发生 在我们眼前。因此,我们利用引言部分来反思一些见解,在今天忧虑的、紧张的、邪恶的、脆弱的—但具有抵抗力的—城市世界中,乌克兰战争给城市、垂直和激进之间的交 叉领域带来的一些见解。如此一来,我们不仅寻求更清晰地呈现权力垂直对生活、世界 和城市的暴力影响,而且还寻求在突发的叛乱形式的(垂直的、水平的、既非垂直也非 水平的)抵抗中找到希望的种子。

关键词

水平、激进、抵抗、乌克兰、城市战争、城市杀戮、垂直

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Preamble: On comparison

As this Introduction goes to press, the war in Palestine is rapidly unfolding. Israeli planes and artillery pound the Gaza Strip from the sky above and a full-scale invasion has begun. Shocking footage abounds of high-rise buildings turning to dust, burying their Palestinian occupants. As Israel's urbicide-from-above intensifies, Israeli lawmakers resort lightly to language which suggests genocidal intent against Palestinians; and carry out actions which confirm the reality of these intentions. All the while. Israeli civilians continue to reel from the effects of Hamas' murderous air. land and sea attacks on 7 October 2023. There is no (moral or scalar) symmetry between the 7 October attacks by Hamas, and the vengeful, urbicidal response by Israel. The cumulative effects of both have resulted

in a full-scale volumetric war of unimaginable intensity. All the while, russia's assault against Ukrainian buildings, cities and defenders continues unabated – with hundreds of deaths documented daily – but it falls increasingly under the radar of global attention.

In the midst of this urbicidal spiral, the discourse on Ukraine vis-á-vis Palestine has become polarised and toxic. Speculative analogies and ill-informed comparisons are relentlessly disseminated by public figures (from Yanis Varoufakis to Volodymyr Zelenskyy) and media outlets. The editors of this special issue call for caution when drawing comparisons – especially quantitative ones pertaining to death tolls – between distinct geopolitical contexts, steeped in sensitivities and entanglements that cannot be understood without deep experiential and/or expert knowledge.

Nauseating transversals of the radix

From the mine shaft to the satellite dish and from the under-ocean fibre-optic cable to the depleted remains of the ozone layer, recent discussions of verticality in the urban studies literature display a tendency to lurch nauseatingly between objects and processes scattered across multiple axes, layers and volumes. A variation on this type of gratuitous rhetorical contrast between highest and lowest is built into the title of this special issue. 'Vertical' may be seen as the opposite of 'radical', which - in terms of its etymology - refers, via the Latin radix, to roots or essences. The idea of the 'radical' itself can be made to work with diverse geometric and morphological associations - vertical as well as horizontal ones. Roots are grounded, providing the nutritious foundation for life to grow, as it were, from the 'bottom-up'. Their vertical directionality is real, but it has, we want to stress, an inherent horizontal essence. Roots grow vertically but soon enough, they end up reaching outwards, pointing sideways or twisting and snaking into all sorts of complex and multi-directional formations. Contrary to Deleuze and Guattari's muchcited anti-binary (but unwittingly binaryreinforcing) geometry, the rhizomatic and the arborescent co-exist and co-depend. The nonlinear does not cancel the linear, just as the horizontal does not cancel the vertical. Grand and incredulous narratives might, in certain circumstances, be complementary. A stable vertical structure is more often than not made up of a large quantity of horizontal (or diagonal, or crooked) entities piled up on top of each other.

As Steiner and Veel (2020) somewhat dogmatically suggest, the vertical erection of towers, from the Tour Eiffel to the World Trade Centre Twin Towers, occurred in tandem with the formation of far-reaching, global communication networks, positioning vertical spikes as central nodes in global information networks. Or, as Bratton (2015) suggests in his convoluted-but-fecund metaphor of the computational 'stack', this political-geometric 'accidental megastructure' goes some way towards intimating a rhizomatic co-dependence of vertical and horizontal planes. By identifying verticality as a special issue in need of radical rethinking, this selection of papers explores how multiple, overlapping and conflicting verticalities offer new perspectives for considering and theorising 'the vertical' and its incumbent horizontalisms. By articulating a call and demand for more expansive, reflexive or radical (but not necessarily uncritically 'rhizomatic' or 'horizontal') approaches to urban verticality, this selection of papers foregrounds a plurality of approaches that bring together scholars from the cogent disciplines of geography, anthropology, history, sociology, literature, architecture and urban planning; and from a diversity of localities across overlapping and indeterminate global souths, norths and easts. The contributions are arranged into two (interdependent and porous) sections, which serve to structure the issue: Power Verticals and Vertical Resistance.

For this conceptual framing, we borrow the term 'power vertical', used both in scholarship and vernacular parlance in reference to forms of authoritarian governance emerging in post-Soviet Asia and Europe. Most prominently this term is identified with the governance structure consolidated by vladimir putin's regime in russia.¹ In using this term, we are signaling a commitment to making use of 'emic' or 'vernacular' terms – encountered in the field or in the archive, and rooted in area knowledge – as theoretical concepts-in-themselves; rather than relying on imported theoretical abstractions (coined in Parisian or Californian ivory towers) in order to *make sense of* 'merely' ethnographic utterances articulated 'down there' on the messy terrain of the everyday.²

Across the contributions, power verticals emerge in myriad guises in the form of power asymmetries which seem to overdetermine forms of urban development: but are often accompanied - and challenged - by forms of vertical, horizontal or transversal resistance. From the regulatory schemes that are written into planning law to curtail urban development (see Burte, 2024) or encourage high-rise construction with detrimental effects on residential populations (see Ebbensgaard, 2024), the power verticals on display throughout this special issue find expression in policing strategies, legal proceedings and evacuation procedures (see Adey, 2024). By drawing attention to the subtle workings of power in and through crooked vertical and horizontal planes, the papers in this volume direct attention towards manifestations of resistance in the everyday lives of those bodies that refuse to evacuate according to standardised safety procedures (see Adey, 2024), that mitigate the limitations posed in over-crowded, dense migrant enclaves (see Sheehan, 2024) or which inhabit vertical landscapes in ways that contradict or pervert hegemonic habituses of verticality (see Filiz, 2024; Harris and Wolseley, 2024; Roast, 2024). By foregrounding the everyday encounters with and embodiments of variously competing and overlapping power verticals - and the rendering ordinary or mundane of its effects - this special issue advances an agenda for thinking more radically with verticality in urban studies.

This introduction was written in mid-2023, more than one year following the beginning of russia's full-scale invasion of Ukraine. Since February 2022, an exceptionally brutal war has unfolded on the territory of Ukraine. At the time of going to press, this war had killed and injured up to half a million people, displaced over 10 million, destroyed ecosystems and decimated dozens of cities, hundreds of towns and thousands of villages.³ Further, russia's war on Ukraine has the tragic - but very significant - distinction of being one of the first 'full-scale wars' to occur on a predominantly-urbanised national territory a territory on which vast swaths of high-rise infrastructures are subjected to violent destruction.⁴ As we have completed work on this special issue, we have therefore paid close attention to the horrific aggression perpetrated - and the remarkable resistance effectuated - on the ground and in the air above Ukraine. Our engagement is motivated by our support for Ukraine's resistance to russia's terrible, ongoing, neo-colonial aggression. A disclaimer: two of four editors of this special issue have been (as Slavic studies scholars) particularly closely implicated and interpellated by the current war. Further, we are motivated by clear trajectories in common with existing work on verticality and urbicide in the urban studies literature. We seek to explore the potential new insights that the russian war on Ukraine and Ukrainians' resistance to it brings to bear on urban debates on 'the vertical'.

Here, it is helpful to recall Graham's (2005) work, identifying the US-UK led invasion of Iraq - alongside the Israeli aggression and occupation of Palestinian land - and the deliberate targeting of socalled 'insurgent cities', as marking a shift in how urban warfare has become 'profoundly vertical, reaching up to towers of steel and cement, and downward into sewers, subway lines, road tunnels, communication tunnels, and the like' (Peters quoted in Graham, 2004: 14). With the vertical layering of urban infrastructures, cities emerge as both targets and vessels for warfare. Weizman (2002), among others, has called for urban scholars to analytically 'cut through the landscape' and render visible the 'territorial hologram' (p. 2) that constitutes the urban battlefields not merely as cartographic surfaces but as a fully volumetric 'hollow land' (Weizman, 2012). A fully-fledged vertical understanding of territory, Elden (2013) proposes, promises to expose not only the calculative techniques involved in giving dimensions to territorial volumes - weighing, measuring, surveying, managing, ordering - but the militarised mechanisms that control what or who gets to move through them. The vertical war on Ukraine similarly necessitates further investigation not only to lay bare the calculative techniques through which power verticals operate, but to draw attention to the multifarious forms and geometries through which resistance towards them manifests itself.

Yet, when seen against the dreadful background of the intensely-militarising global conjuncture of the 2020s, as nuclear sabrerattling reaches unprecedented levels of severity, and as wars and confrontations in Tigray/Ethiopia, Yemen, Myanmar, as well as Ukraine and Palestine, have each claimed tens or hundreds of thousands of victims, it becomes clear that military urbanism - and 'vertical urbicide' - constitutes a critical lacuna in the papers of this issue. Instead, they demonstrate how various vertical conflicts normalise and render ordinary classed, gendered and racialised conflicts in vertical space. As the papers explore a range of everyday encounters with and embodiments of variously competing and overlapping power verticals, they make clear links to the vertical forms of embodied resistance we trace in Ukraine. We therefore make use of this introduction to reflect upon the insights that the war in Ukraine brings to bear on the intersection between domains of the urban, the vertical and the radical in the fraught, tense, vicious, fragile - but resistant - urban worlds of today; if not to render more clearly visible the violent effects of power verticals on ordinary urban life and to find seeds of hope in the insurgent forms of resistance.

Power verticals

The attention that urban scholars have paid to the power dynamics sustaining vertical warfare and high-rise construction has been as much concerned with the technical procedures that give shape to volumes (Elden, 2013; McNeill, 2020; Weizman, 2002) as with the conditions of possibility for social life to unfold within them (see this volume, Adey, 2024; Burte, 2024; Ebbensgaard, 2024; Sheehan, 2024).

In the context of russia's war on Ukraine. the mass artillery shelling and missile bombardment of high-density urban residential districts not only exhibits variable effects on different housing types but also reveals differential architectural affordance for seeking vertical safety. A direct hit on a prefabricated multi-section concrete block from a ballistic missile tends to lead, anecdotal and observational evidence suggests, to the complete vertical collapse of the section hit, but not of the neighbouring sections – although, as architect and theorist Gubkina (2023) observes, specialists have been surprised at the frequency with which vertical sections – which were expected to 'fold . . . like houses of cards' have in fact remained standing. Meanwhile, a direct missile hit on a brick, stone or breezeblock structure tends to decimate the roof and upper floor, but to leave the lower storeys structurally unaffected.

At the opposite vertical extremity, the war on Ukraine has highlighted the complex manner in which shelter is distributed along perpendicular and horizontal axes, from the subterranean depths to the (relatively) cushioned heights of a corridor or bathroom. Residential buildings erected during the 19th and early-mid 20th centuries, up to and including the post-Cuban missile crisis of the 1960s, tend to be equipped with basements or cellars, some (but not all of which) are suitably equipped to save (rather than endanger) lives. By contrast, buildings built since the 1970s tend not to be equipped with shelters and survival is dependent on the presence of adequate and proximate public facilities. Several stations of Kharkiv's metro reach the northern Saltivka district (closest to the russian border and most vulnerable to uncoordinated artillery attacks) and residents were able to seek (cramped) safety there during bombardments (Ilin, 2022; Pieniażek, 2023; Verini, 2022). On the other hand, Dnipro's 1970s Peremoha region is not equipped with a metro line. In consequence, a high proportion of the residents of the nine-storey building hit by a russian ballistic missile on 14 January 2023 were at home at the moment of impact, despite the fact that the air raid siren sounded. They simply had nowhere to hide and a minimum of 46 residents of the section of the building hit were killed in the most deadly single documented attack on residential infrastructure (although by no means the deadliest attack on civilians) since the beginning of war in 2014 (Shulzhenko, 2023). As cities become battlegrounds, urban infrastructural choices made decades ago have a direct bearing today on matters of life and death.

As a rule, high-rise buildings fare ill in times of war. As Gubkina observes, elevators frequently do not function during air raids and people *-especially* those most vulnerable and at risk, such as the elderly, partially-able and parents with children - are reluctant to descend to cramped basements, even while sirens roar and missiles, shells and kamikaze drones roam the skies overhead with murderous intent. In protracted conflicts, threat becomes routinised, and people are less likely to seek shelter and more likely to convince themselves to stay put. In Gubkina's summary, the full-scale war has laid bare the 'crisis of verticality' in Ukraine, a country in which a very high proportion of the population lives or works in prefabricated high-rise buildings dating from the 1960s until the present day. The experience of war ought,

Gubkina assesses, bring about new norms whereby construction does not exceed six storeys and shelters are mandatory. This would require, however, a global (not merely Ukrainian) reconfiguration of the construction industry's profit-driven, publicnessdisavowing power vertical in its many localbut-commensurable guises.

While the 'crisis of verticality' in Ukraine has crystallised in the context of brutal warfare, it serves to highlight the wider global conjuncture of architectural failure, and the collapse of high-rise buildings that put the conditions of life in vertical space under various degrees of threat (Smith and Woodcraft, 2020). The atrocious 2017 fire that killed 72 residents in the 24-storey Grenfell Tower in London, for example, exposed the systematic failure of the UK Government to enforce adequate building regulations and appropriate evacuation procedures (that until then had insisted on the principle of 'stay put' with fatal consequences for the residents in Grenfell). After decades of governmentenforced austerity politics and deregulation, the United Kingdom had come to set lower standards for fire safety than its European neighbours, making it 'a dumping ground' for lethally dangerous building materials (Apps, 2022: 44). In late 2023, 3797 buildings have officially been identified as having unsafe cladding across the United Kingdom with remediation works commencing or completed on 40% of these (Gov.uk 2023). For high-rise buildings, almost 500 towers have been identified with ACM cladding and while remediation works have been completed on 85% of these, 22 tower blocks (4%) remain untouched – two of these are vacant and 15 have forecast start dates scheduled, with the remaining four having a local authority enforcement action taken against them (gov.uk 2023). While action to prevent another Grenfell is being taken, the disaster exposes not only the government's complicity in creating hazardous conditions of high-rise living across the country but also the normalisation of risk exposure to people living in high-rise buildings (Apps, 2022; Bulley et al., 2019).

The 'crisis ordinary' of vertical living is similarly evident in Nairobi, where Smith (2020) demonstrates how the frequency of collapsing residential high-rise blocks has become a common, almost normal event. With a growing population and demand for housing, speculative property developers are increasingly erecting buildings while cutting corners to increase profits, revealing how the circumvention of planning laws, lack of oversight, opaque documentation and use of poor-quality and substandard materials has become common practice in the construction industry. When the crisis of verticality in the case of Ukraine is read alongside this work on tower block failure and collapse, it draws attention both to the spatiality of vertical vulnerabilities (lack of shelters, adequate evacuation procedures and so on) and procedure (building regulation, oversight, maintenance and evacuation).

Moving from geometries of shelter and vulnerability to those of strategy and violence, the multiple scupperings that russian forces encounter in attempting to advance their brute invasion of Ukrainian land also reveal a vulnerability of their military capacity and an instability in their power hierarchy. Both Ukrainian and international commentators have remarked on how the obsolete and unwieldy 'rigid', 'top-heavy', 'hierarchical' 'power vertical' hampers russian operational command (Galeotti, 2023; Kofman and Lee, 2022), as russian orders must be directly communicated downwards by generals and colonels. When communications are unstable, insecure or unreliable, generals resort to travelling to the battlefield in person to set processes in motion. Until they arrive, units' activities are hampered, and, as they are condemned in limbo to repeat failed commands again and again (as in the infamous nine-attempt Siverskyi Donets river pontoon bridge crossing of May 2022) they are sitting ducks for air and ground attacks. When the general does finally arrive, they are not infrequently killed themselves (this was especially true in the war's early stages). According to Ukrainian sources, 12 russian generals and 42 colonels were killed on the battlefield in the first two months of the full-scale war – an unmatched number in modern warfare since World War Two (Barnes et al., 2022).

The vulnerability of bodies caught in vertical fire-lines therefore opens up questions about the role that architectural vertical spaces can play in facilitating a dismantling of the power vertical. By highlighting the tensions between the politico-legal processes that orchestrate and govern volumetric space (from evacuation procedures during fire emergencies explored by Adey (2024); to the normalisation of harmful living conditions London examined by Ebbensgaard in (2024)) and the lives of people who occupy the vertical spaces of regulation (migrants, garment workers and social housing tenants), this special issue reveals diverse 'imaginaries that might not only describe but offer alternative volumes to inhabit' (Adey 2013: 52). By exposing the inherent insufficiencies of power verticals, this collection of papers develops more affirmative accounts of how people make sense of their oftenadverse conditions of vertical habitation.

In 'Fall Girl', Peter Adey (2024) foregrounds the improvisatory solidarity of female workers in the face of failing evacuation procedures during high-profile high-rise fires in garment factories. In the Rana Plaza fire in Dhaka that in 2013 killed more than 1100 people, mostly women, the trapped garment workers were forced to leap from windows and slide down makeshift chutes or crawl down lines stitched together with garments. They were prevented from using fire escapes or evacuation stairs. At the Triangle Shirtwaist fire in New York City in 1911, the garment workers resisted evacuation orders from the fire brigade to jump one-by-one into out-stretched life nets on the ground, and instead jumped in groups, 'arm in arm, hugging, holding hands – they "all went in a pile together" ' (Adey, 2024: 700). By fore-grounding the solidarities of garment workers in shared vulnerability, Adey (2024) animates 'more affirmative, embodied solidarities' (2024: 690) in vertical space and thus reveals a horizontal plane of stitching, holding and hugging bodies acting in unison as they were shifted along the vertical axis.

In 'Light Violence', Casper Laing Ebbensgaard (2024) draws attention to the soft violence that results as a collateral effect of vertical development in contemporary London, as new towers remove sunlight and daylight from neighbouring residents, condemning them to live in darkness and increased exposure to being overlooked. By revealing how material harm resulting from vertical development is normalised and thus naturalised throughout the planning process, the paper demonstrates how 'light' violence becomes a legally 'acceptable' practice in London. Furthermore, the paper details how the distribution of material harm as a result of worsened living conditions for neighbouring residents is disproportionately distributed to already marginalised communities living predominantly in social housing. In doing so, the paper reveals how effects high-rise construction the of entrench socio-economic divides in the city and enhance the social injustices of the housing market. Introducing light and shadow as elemental media for exposing politico-legal injustices in vertical development, Ebbensgaard similarly calls upon urban scholarship to engage in (more radical) forms of advocacy that challenge power verticals throughout the planning process.

Extending the concern for regional differences and differentials in vertical development and destruction, Himanshu Burte's (2024) paper, 'Mumbai's Differential Verticalisation', asks how urban scholarship can better account for the specificities of vertical landscape that emerge in cities of the Global 'South' and 'East'. Drawing on examples from Mumbai, Burte shows how the planning process lacks strategic vision and coherence as state authorities grant permission to exceptional vertical developments that serve private capital rather than the public interest. By detailing material conflicts that emerge in vertical development projects between technical and sovereign planning processes, local and state authorities and spatial and societal concerns. Burte documents how the interest of the public is compromised and hollowed out. The resultant landscape of differential vertical development sets a precedent for vertical development where the abnormal or exceptional come to define the norm, both in the form of which it aspires to and from which it is allowed to deviate.

By exposing how the urban planning and governance processes are riddled with power asymmetries, contradictions and incongruencies, the special issue therefore dispels the fantasy of smooth planning processes and urban governance structures that often remain invisible and uphold uneven development, functioning as so many power verticals. The papers collected here foreground everyday encounters with ever more socially divided – or entrenched – cities (from London to Mumbai), and thus extend the militarised metaphors and mechanisms that besiege cities in ways that are more elusive and indirect. As people populate and pilfer life within and beyond the vertical power hierarchies, the papers in this volume expose the role that legal frameworks and planning mechanisms governing vertically entrenched spaces play. In doing so, they give rise to a

pluriversal (or plurivertical) form of critique that centres embodiment, inhabitation and regulation as potential modes of resilience and resistance to power verticals.

Vertical resistance

While our attention to power verticals exposes power asymmetries, contradictions, incongruencies and violences, this special issue equally pays attention to the resistive practices of urban populations, artists, activists and others who seek to challenge power verticals through an array of radical, zigzagging – but not necessarily horizontal – practices of insubordination and defiance.

Returning to consider Ukraine's moresuccessful-than-expected struggle against the russian war machine, we see how resistance is performed in multiscalar and pluri-tactical ways. On the level of defence, Ukrainians have exploited the vertical plane as an axis of resistance. In the early stages of war, handheld anti-tank missiles and small unmanned aerial vehicles (UAVs) saw widespread and highly-effective use in halting the russian advance on Kviv, Kharkiv and other cities and regions. Today, Ukrainian army, territorial defence and intelligence units continue to retrofit civilian drones with explosive devices and deploy them with high accuracy against russian targets in both urban and rural settings. Ukraine's resistance – and the key to its military, economic and societal 'resilience' (the latter term appears to be favoured among both military analysts and social scientists) - is often portraved, by contrast, as evidence of the 'horizontal' character (whether by essence or by trajectory) of Ukraine's body politic (Tooze, 2022). This horizontality is sometimes identified, especially in policy-focused literature, as the 'effect' of recent western-initiated or western-inspired decentralisation reforms. First among these are NATO-style reforms of Ukraine's military command begun in the wake of russia's 2014 invasion of Ukraine, which were intended to transform Ukraine's until-then top-heavy 'Soviet system' (resembling russia's) into a NATO-shaped 'coordinated and horizontal "neural" network scheme' (Baggiani, 2022). Despite the reforms' apparent slowness, they did in fact succeed in implementing mechanisms of 'tactical autonomy' for lower-ranking non-commissioned officers and creating a mutualistesque horizontal conjuncture for 'cross-sociresistance' (Shelest, 2022) through ety military-civilian cooperation.

Further, Ukraine's post-2014 administrative de-centralisation consolidated regional centres but - seemingly paradoxically boosted the authority of community-level decision-making and budget-disbursing units (the number of councils dropped from over 10,961 to under 1470 from 2015 to 2020). As a consequence of the reforms, the share of central government transfers in regions' revenues decreased dramatically from 59% to 33% (Romanova, 2022). Correspondingly, the 'authority' of councils and municipalities and the effervescently agonistic social and political activism of citizens themselves are said to have increased (Huss, 2022; Romanova, 2022). Cities – and their political leaderships – have been among the major beneficiaries of these (top-down!) horizontalising reforms, with a massive boost to the authority and charisma of some governors and many mayors, most of whom were deeply unpopular and perceived as crooked prior to the full-scale invasion (the best known-instances include Dnipro's Borys Filatov, Kyiv's Vitaly Klitschko and Kharkiv's Ihor Terekhov). The authority of these big city mayors, which resonates *urbi et* orbi, is echoed on smaller scale, in a fractal fashion, by the powerful wartime leadership of small-town mayors, council heads and elders (starostas). In what may be interpreted as a dark recognition of this authority, an unknown number of senior municipal officials have been imprisoned, tortured and killed by russians on the territories they have occupied (Romanova, 2022: 8).

The invocation of power horizontals, as a tactical overturning or inversion of power verticals, therefore offers a generative heuristic for thinking about, addressing and perverting socio-environmental injustices that result from vertical power dynamics. In 'The Shard and the City', Harris and Wolseley (2024) seek to address the methodological limitations of urban critique and the way it hitherto tends to frame and engage with 21st-century luxury urban development in overly narrow ways. Taking their co-produced film Vertical Horizons as a starting point for their intervention, they advance a creative and collaborative methodology that seeks to level with social and symbolic powers of urban luxification. By juxtaposing a series of thirteen 360° panoramic shots, taken at various locations around London in which the controversial luxury building, The Shard, appears in view at different times. Vertical Horizons aims to 'break down and disrupt the Shard's centrality' (2024: 662). By decentring the Shard from view, the series of panoramic street views offer 'contrasting and more everyday perspectives on the building' (2024: 663) that, with the over-layered voices and sounds of the city, seek to 'recognise and disrupt, if not dismantle, authoritative approaches and statements around vertical urbanism' (p. 664). In this way, Harris and Wolseley not only develop a critical framework that levels with the symbolic power of new vertical landmarks in urban settings, but through their experiential collaborative video project advance more multi-dimensional, flexible and ultimately ambivalent critiques of verticality.

With focus on the representation of the spectacle of vertical urbanism in Chongqing, China, Asa Roast (2024) similarly dispels the fantasy of vertical hierarchies. Drawing attention to the weird complexions of vertical intersections between buildings, walkways, public transit systems and transportation

'Towards Verticality' networks, Weird explores the contested ways high-rise urbanism in Chongqing, China is imagined as 'weird'. The apparent 'weirdness' of this spectacularly vertical city serves to construct imaginaries of the future, that 'illustrates the multivalent nature of the vertical city, with spaces of vertical density appearing as sites of communality, restructuring, everyday life, as well as spectacle, luxification and accumulation' (2024: 649). Pushing back against the tendency to view vertical urbanism as foreign and unnatural, Roast shows how 'weird' vertical discourses obscure the local history of Chongqing's post-socialist urban restructuring. Even as verticality in Chongqing is cast as 'weird' urbanism, the city's high-rises, elevated walkways and vertical infrastructure serve for many locals as everyday, mundane features of the city. In this way, Roast suggests the need for urban critique of verticality to better recognise and assess the diverse ways that hyper-visualised, branded and marketed verticalities are experienced, received, understood and appropriated by the people who live in and among them.

Extending this work, Megan Sheehan (2024) seeks to draw attention to the embodied practices of regional labour migrants who, in search of housing in Santiago, Chile, are channeled into overcrowded, dense highrise neighbourhoods through social networks. In 'Everyday Verticality', she explores how these migrants experience the confined spaces of the vertical enclave and mitigate the limitations these dense living conditions pose on their everyday lives, thus foregrounding their potential for resisting the debilitating conditions that verticality imposes on urban life, and the forms of social critique it often produces. Sheehan highlights how residents compose supportive cartographies in the dense neighbourhoods in which they carry out habitual practices and routines in adjacent spaces, parks, markets, shopping centres and squares. In doing so, migrants extend the vertical optic to include the connected networks of spaces that are appropriated across horizontal planes. By examining how people make use of public spaces that extend horizontally from the vertical plane, the paper explores the civic potential of urban commons to illustrate salient linkages between vertical living and public space.

Further highlighting the socially contested nature and locally specific meanings of vertical spaces, Anlam Filiz (2024) explores recent Turkish debates about skyscraper development in the cities of Istanbul and Izmir. In 'Verticalities in Comparison', Filiz juxtaposes these two Turkish cities – the country's first and third most populous pointing to the role of high-rises as material and discursive formations. Through analysis of debates carried out in the Turkish media between scholars, journalists, activists and officials, Filiz shows that the recent proliferation of high-rise construction in Turkey has come to symbolise material disparities between Istanbul and Turkey's other urban centres. Recent high-rise construction in Istanbul – where skyscrapers are symbols of the city's ever strengthening link to global capital flows - stands in sharp distinction to Izmir, an urban centre characterised historically by its 'underdevelopment' and where the prospect of vertical expansion is discursively resisted. Filiz argues that Izmir's discursive opposition to high-rise development is a form of resistance to Turkey's integration into global neo-liberal capitalist networks, which Istanbul's skyscrapers have come to symbolise.

Concluding remarks: Towards transversal perversions

As vertical worlds are erected and shattered on planetary scales, this selection of papers identifies 'verticality' as a *special issue* in urgent need of critical – or *radical* – interdisciplinary interrogation and rethinking across urban studies. Scholars over the past decade and a half have provided a critical point from which to force a much wider 'vertical turn' away from the Euclidian tendency running through spatial disciplines (Graham, 2016) and ensuing forms of conceptual horizontalism (Graham and Hewitt, 2013; McNeill, 2005; Murawski, 2018b). By attending to the asymmetries of power relations and the ways they bear on societies, subjectivities and space (Adey, 2010b; Weizman, 2012) scholars have adopted a language that foregrounds the 'volumetric' (Elden, 2013; Graham, 2004), 'voluminous' (Billé, 2020), 'spherical' (Sloterdijk, 2011a, 2011b), 'aerial' (Adey, 2010a; McCormack, 2009), 'atmospheric' (Borch, 2014: McCormack, 2008, 2018) or 'nephospheric' (Garrett and Anderson, 2018). Research through such frameworks has explored how vertical spaces are *practised* (Baxter, 2017; Ghosh, 2014), represented (Butt, 2018; Hewitt and Graham, 2015) and imagined (Roast, 2019), suggesting that the ontological turn towards 'volumetrics' helps develop multimodal and multi-dimensional understandings of cities and urban spaces (Harris, 2015; McNeill, 2020). Yet, critics have pointed out that narrow framings of verticality through reductive flat ontologies (Murawski, 2018b; Spencer, 2016), through militaristic and geopolitical landscapes of power (Harris, 2015) or through an over-emphasis on discourses of planetary urbanism at the expense of 'city-centric scholarship' (Schindler, 2017) have precluded research(ers) from developing heterodox, transversal agendas for critical urban research on verticality.

In urban studies, this is evident in the ways that scholarship remains locked into binary critiques – success/failure, inclusion/exclusion, luxury/slums, dispossession/accumulation, urban/suburban – that construct 'verticality' as inherently flawed. Work on the seemingly unfettered surge in (predominantly luxury) high-rise construction (Atkinson, 2019; Nethercote, 2019; Soules, 2021) runs alongside high-rise destruction, whether through warfare and strategic urbicide or through apparent 'failures' of tower blocks (Bulley et al., 2019; Jacobs, 2006; Jacobs et al., 2007; Smith, 2023; Smith and Woodcraft, 2020; Tamburo, 2020). Tower block failures have exposed the social injustices of material design, poor maintenance and building regulation, while in turn reifying the longstanding tradition to demonise socialist and modernist architecture (Bykov and Gubkina, 2019; Murawski, 2018a). Such concerns revive longestablished critiques of vertical urbanism for producing urban slums (Harris, 2015), reinforcing patterns of uneven urban development (Harvey, 1979, 1989), extending racial and gendered forms of exploitation (Brown, 2018; Hayden, 1977) and exerting social and environmental forms of expulsion (Sassen, 2014).

In response to this predicament, this special issue moves beyond the limitations of binary critiques to present and interrogate multiple highlighting context-specific verticalities. meanings and practices that, in line with Bier (2022), seek to 'decolonise' verticality, or the third dimension, by considering varied conceptions and practices of verticality outside the conventional canon (see in this issue Burte, 2024; Filiz, 2024; Roast, 2024). The special issue aims to extend, broaden and challenge current debates on verticality by considering differential verticalities as spaces of potential that offer conceptual and epistemological potentials for developing more socially and environmentally just vertical futures (see in this issue Adey, 2024; Burte, 2024; Ebbensgaard, 2024; Harris and Wolseley, 2024; Sheehan, 2024). In doing so, the issue draws on the wider move towards diversifying and pluralising debates on verticality through comparative area-studies perspectives that are located in and explore verticalities from (with apologies for the use of loaded and reductive compassisms) 'southern' (Arrigoitia, 2014; Goodman, 2020; Simone, 2014) and 'eastern' perspectives

(Guan, 2020; Murawski, 2019; in this volume Roast, 2024; Tamburo, 2020; Zubovich, 2021).

By building the etymological opposition of 'the vertical' with 'the radical' into the title of the volume, we seek to make the radical itself work with diverse geometric and morphological associations - vertical as well as horizontal, but also – to refer to Nunes' (2021) transversal Marxist theory of political organisation - neither vertical nor horizontal ones. Radical Verticality provides ample ethnographic, geographic and theoretical material for considering and theorising urban verticality in concert with rather than in opposition to its incumbent horizontalisms, diagonals, curls, zigzags and scattered planes. Framing this special issue as a call and demand for more radical (i.e. rooted, grounded and meticulous, but not reductively rhizomatic or horizontal) approaches to verticality, the selection of papers reveal an inherent morphological tension to vertical urbanisms. Arranged according to two main themes (Power Verticals and Vertical Resistance) this volume, on the one hand, seeks to decentre, destabilise or 'decolonise' verticality (see in this issue Burte, 2024; Filiz, 2024; Roast, 2024) while, on the other hand, offering alternative frameworks from which to conceptualise verticality in relation to urban injustice (see in this issue Adey, 2024; Burte, 2024; Ebbensgaard, 2024; Harris and Wolseley, 2024; Sheehan, 2024).

Our closing thought returns to the question of what we might call Ukraine's 'power horizontal'. What lies behind the ongoing success of Ukraine's resistance (of which the large-scale transfer of weapons from NATOallied countries, beginning in earnest only many months following russia's full-scale invasion, should be seen as a consequence rather than a cause)? Norms and forms of municipal governance? Deep-seated cultural propensities towards horizontalism, rooted in early modern traditions of Cossack democracy and/or early Civil War-era Makhnoite 'national anarchism' (Gorbach, 2015)? Myriad factors – material and ideational, cultural and historical, local, regional and planetary, architectural and environmental - have added up to conjure and consolidate a deep-rooted, and hence, toweringly efficacious horizontally integrated reality of resistance in wartime Ukraine. Scarred cityscapes, burned-out tower blocks, nested cults of personality, Cossack traditions, geopolitical conjunctures converge. Ukraine's society, culture and military, strengthened by substantive vertical and horizontal integration, instantiate transversal dissections, deflations and perversions (piraMMMida, 2023) of russia's vexed, berserk and defunct 'power vertical'. In the course of finalising work on Radical Verticality, we have observed, learned from and sought to support Ukraine's resistance – interpreting and analysing it in juxtaposition with the planetary urban catalogue of weird, brutal and differential zeniths, descents and horizons catalogued in this volume, spanning Dhaka, London, Mumbai, New York, Philadelphia, Chongqing, Santiago, Istanbul and Izmir. In summary, we hope that Radical Verticality will constitute a modest resource for new theorisations of - and tactics, strategies and perversions within, without and against - the urban world's perfidious and pervasive power verticals to congeal, coalesce and converge.

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Notes

- 1. Throughout this special issue, we deliberately decapitalise 'russia' and 'vladimir putin' in order to extend our critique of the ways that power verticals not only shape (to detrimental effects) urban morphologies and geographies but also linguistic formation and orthography. Decapitalising thus becomes a means of symbolically decapitating perfidious verticalities that pervade scholarship and the broader written vernacular.
- 2. For useful treatments of the notion of the 'power vertical' see Sharafutdinova (2013) and Person (2015). On 'ethnographic theory', see Da Col and Graeber (2011). For its application with reference to a post-Soviet instance of a 'power vertical masquerading as a power horizontal' see Murawski (2022).
- 3. As of July 2023, casualties from the 2022 to 2023 war are impossible to accurately estimate. Reliable estimates range from c. 100,000 to well over half a million dead and injured. For a commentary on the methodological difficulties in counting the dead during the 'full-scale' as opposed to the 'hybrid' war, see Varghese (2022). The most authoritative history of the war published so far estimates casualties in the hundreds of thousands (Plokhy, 2023). According to data monitored by ACLED (the Armed Conflict Location and Event Data Project) the war in Ukraine

was the deadliest war in the world by a very substantial margin in 2022 and 2023 (ACLED, 2023).

4. In preference to plunging into a debate on classifications of war, we employ here as a working definition the popular term widely used by Ukrainians to distinguish the military invasion and occupations perpetrated by russia on Ukraine in 2022 and 2014. Here the term 'full-scale invasion' refers to a land, sea and air war, encompassing the entire territory of one or more countries, indiscriminately targeting civilian infrastructure, causing hundreds of thousands of civilian and military deaths in a short space of time and motivated by genocidal intent. In the popular Ukrainian usage, 'full-scale war' (povnomasshtabna) is distinguished from the drawn-out 'hybrid' invasion and occupation launched by russia and its client forces in 2014, which led 14,000 deaths over an eight-year period. For a discussion of the term 'full-scale war', see The Village.Ua (2023); for commentary on the emergent category of 'genocidal intent' in international law, see New Lines Institute (2022) and Azarov et al. (2023).

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