



Forum: Russia, Europe and the colonial present: the power of everyday geopolitics

**Stefan Bouzarovski¹, Christine Bichsel², Dominic Boyer³, Slavomíra Ferenčuhová⁴, Michael Gentile⁵,
Vlad Mykhnenko⁶, Zeynep Oguz⁷, and Maria Tysiachniouk⁸**

¹Department of Geography, University of Manchester, Manchester, UK

²Department of Geosciences, University of Fribourg, Fribourg, Switzerland

³Department of Anthropology, Rice University, Houston, USA

⁴Institute of Sociology, Czech Academy of Sciences, Prague, Czech Republic

⁵Department of Sociology and Human Geography, University of Oslo, Oslo, Norway

⁶Department for Continuing Education, University of Oxford, Oxford, UK

⁷Laboratory of Cultural and Social Anthropology, University of Lausanne, Lausanne, Switzerland

⁸Department of Geographical and Historical Studies, University of Eastern Finland, Joensuu, Finland

Correspondence: Stefan Bouzarovski (stefan.bouzarovski@manchester.ac.uk)

Published: 5 September 2023

1 Russia, Europe and the colonial present: the power of everyday geopolitics – Stefan Bouzarovski

During the past few months, the residents of most Ukrainian cities have been subjected to extensive blackouts as a result of Russian air strikes on energy production, transmission and distribution facilities. Military objectives aside, such actions are often justified along the lines of “Russia is just taking back [the] infrastructure that they owned 40 years ago”¹. This reflects a deeper and more pervasive discourse across the Russian polity: the notion that Ukraine owes its modernity, or for that matter its entire existence, to Russia. As pointed out by Vladimir Putin in his de facto declaration of war on 24 February 2022, “modern Ukraine was entirely created by Russia or, to be more precise, by Bolshevik, Communist Russia” (Putin, 2022). The wanton demolition of vital socio-technical installations that underpin the comforts of contemporary life, therefore, is not simply an effort to assure military advancement – it also symbolically expresses a pay-back of the civilizational debt that the disobedient victims of these acts owe to empires past and present.

¹<https://twitter.com/CIVILLSERVANT/status/1501262253374513160?s=20>, 8 March 2022 (last access: 24 May 2023); also see similar statement by Alexander Khodakovsky on 17 March 2022, at https://t.me/alaksandr_skif/1092 (last access: 24 May 2023).

In this intervention, I aim to explore how energy infrastructures across Eastern and Central Europe (ECE) and the EU embody both the “colonial past” and “colonial present” (Davis and Robbins 2018; Gregory 2004) in the context of the Russian invasion of Ukraine. Derek Gregory’s (2004:xv) well known definition of the colonial present focuses on the constellations of power, knowledge and geography that continue to colonize lives all over the world. Omar Jabary Salamanca (2016) powerfully illustrates this condition in relation to contemporary Palestine, for instance, by emphasizing the ways in which infrastructures matter both symbolically and physically as concrete expressions of settler colonialism and uneven development – they are “material objects involved in the social and political production and reconfigurations of colonial space and life” (Salamanca, 2016:76).

Inspired by this work, I seek to shed a critical light on the overlapping post-colonial and geopolitical realities that shape Eastern and Central Europe’s contemporary energy geographies. I explore the contingencies that are at play in shaping ongoing state policies and responses to Russia’s invasion of Ukraine. This includes the infrastructural legacies of post-socialism and subsequent transformations, as well as the region’s positioning within Europe’s imaginary and material geopolitical map. I interpret the region’s inherited socio-technical systems through the lens of visions, priorities and interests imposed by Soviet and Russian power structures (Bouzarovski, 2009). I also interrogate how this apparatus is

both articulated through and challenged by everyday energy demand and social reproduction practices.

In theoretical debates, one of the ramifications of the Russian invasion of Ukraine is the foregrounding of Russian colonialism as a distinctive political-economic and cultural regime, predicated upon the domination, oppression and exploitation of neighboring Eurasian nations in particular. Botakoz Kassymbekova and Erica Marat (2022) speak of the hegemonic imaginaries that underpin this form of supremacy. Arguing that it is time to question Russia's self-defined "imperial innocence", they contend that at the heart of this country's sense of militant patriotism lies the idea that its "rule on non-Russian populations is not colonialism but a gift of greatness" (Botakoz-Kassymbekova and Marat, 2022:1). The "historical self-image of a civilizing power" (Botakoz-Kassymbekova and Marat, 2022:2) is coupled with a victim narrative to yield the image of an altruistic and benevolent force for citizens both within and beyond the Russian state throughout history. This portrayal has also been extended to the Soviet Union (Linde, 2016), whose interpretation as a colonial project remains somewhat marginalized and is often contested not only within Russia, but within many liberal and progressive circles across both the Global North and the Global South.

One of the less recognized aspects of the Soviet colonial legacy – and its contemporary incarnation through the actions of Russian governing elites – is the emergence of socio-technical systems for the generation and consumption of energy. Russia's imperial influence on the European energy system, in particular, is a terrain on which many struggles have been politically enacted, not only recently, but throughout the 3-decade-long existence of Russia as an independent state, as well as the Soviet Union that preceded it (Högselius, 2013; Kuzemko et al., 2022). Hydrocarbons such as oil and gas are at the core of these infrastructural relationships, as they are believed to embody the capacity to yield and project geopolitical power across large territorial domains. As Mark Bassin and I argued back in 2011, the "key underlying feature that defines the energy relations between Russia and most of its neighbouring states is the massive hydrocarbon endowment of the former as opposed to the clear dependency of the latter on energy imports" (Bouzarovski and Bassin, 2011:787). As a result, "Russia likes to see itself as an *energeticheskaia sverkhderzhava*, or energy superpower", placed at the "very heart of a new global regime of energy security" where it "would act as the leading guarantor of international development and stability" (Bouzarovski and Bassin, 2011:788). A corollary to this is the Putinist vision for regional domination via energy exports, not merely as a commercial commodity but also explicitly as a *geopoliticheskoe oruzhie* or "geopolitical weapon".

While energy superpower narratives are often attributed to a set of Putinist doctrines – arguably and in part thanks to the current Russian president's specialist knowledge of the energy industry, epitomized by his completion of a PhD

on the subject in the 1990s – the underlying ideologies and practices of Russian domination across the Eurasian post-socialist space are firmly rooted in the Soviet era. The Soviet Union built an energy system predicated upon the networked geographies of what Corey Johnson (2017) calls "distant carbon", involving a vast radial pipeline network extending out of the Russian resource heartland and discouraging direct connections among other countries in the region. Even the names of some of the pipelines – "Friendship", "Brotherhood", etc. – are illustrative here.

Resource addiction to Russian hydrocarbons was one of the main implications of this situation, with ECE being dependent on the Soviet Union for 31 % of its total primary energy supply (TPES) in 1989, "including extremes of 68 percent in Bulgaria and 48 percent in Hungary" (Bouzarovski, 2010:172). Even the fossil-resource-endowed economies of countries such as Kazakhstan, Turkmenistan and Azerbaijan remained dependent on the Soviet pipeline infrastructure – "based largely on Russian territory and under Russian control" (Bouzarovski and Bassin, 2011:789) – to export their products.

When academics and pundits talk about the legacies of post-socialism in Eastern and Central Europe, they attribute them to the ideological, material and procedural features of the centrally planned economy and one-party state. Understandings of the "obdurate infrastructures" inherited from the period of Soviet domination – to use another concept coined by Corey Johnson (2017) – have rarely been approached through a post-colonial lens (in the context of past or enduring imperial ambitions and articulations). Yet the socio-technical systems for the supply, transmission and consumption of energy built across the entire post-socialist space both emerged and were controlled from a single center, despite local modifications and variations. This extends beyond fossil energy to encompass, for instance, nuclear power, whose generation was restricted to three basic reactor types – the RBMK, the VVER 440 and the VVER 1000 – dependent on Soviet manufacture, expertise and maintenance (Bouzarovski, 2010). Even today, countries who rely on these designs – e.g., Bulgaria, Hungary and Slovakia – are having to import Russian nuclear fuel, which remains outside the EU's sanctions regime (Melchior, 2022).

However, the dominance of Russian political and technological power was not restricted to the supply side of the energy sector. Much has been written about the "mikroraiion" – the basic organizational form of Soviet housing provision – yet we rarely talk about its underlying imperial undertones. The socio-technical blueprints that governed how energy was consumed in large post-socialist housing estates – I note here the hub-and-spoke, centralized district heating energy systems for the provision of domestic hot water and ambient warmth – had specific origins within Soviet (Browne et al., 2017), and more specifically Russian, "strategies of political stabilisation" (Šiupšinskas and Lankots, 2019:304). The organization of public transport systems followed specific

planning patterns; some underground transport systems in ECE still use rolling stock manufactured in the Soviet Union – in that sense, the “colonial present” is very much alive. Urban centers linked to specific forms of energy extraction provide another illustration: Siarhei Liubimau (2019) finds that the construction of an urban settlement connected to the Ignalina nuclear power plant in Lithuania was an “essentially imperial phenomenon” (Liubimau, 2019:101). These socio-technical formations hinged upon the visions and actions of institutional actors in Moscow, who “nurtured a network of a multi-scalar essence, with very well-financed, exceptional and often secret or semi-closed urban infrastructures” (Liubimau, 2019:97).

After 1989, post-socialist economic and material transformations challenged the imperial infrastructural orders established by the Soviet Union. This new geopolitical reality was most visibly reflected in tensions concerning the governance and authority of hydrocarbon transit routes. Russian dominance across ECE, in particular, was challenged by the fact that Russia’s energy exports to Europe as a whole made heavy use of pipelines that, because they “ran across the territory of certain newly independent states” were now “subject to the jurisdiction and control of the latter” (Bouzarovski and Bassin, 2011:789). The new situation also placed limits on Russian geo-energy power beyond its *blizhnee zarubezhe*, or “near abroad”. Despite widespread perception to the contrary, Russia was at the infrastructural periphery of the European Union and to a lesser extent even ECE itself.

A number of years ago, together with a wider group of researchers within the UK Energy research center, we explored the European gas network through a spatially relational lens (Bouzarovski et al., 2015). We found that Russia plays a relatively limited socio-technical role in the European gas system due to its geographical position in the gas supply chain and the changing nature of the worldwide gas system itself – with the latter moving towards a more globalized market dominated by trade hubs, flexible flows and “spot prices” rather than the traditional long-term supply contracts preferred by Gazprom. It is in this context that one needs to interpret the construction of the Nord Stream pipeline: it allowed the Russian state to reach deep inside the supra-national territorial assemblage of the European energy sector while reasserting a degree of control over ECE states. Yet, even with Nord Stream, Russia was not an energy superpower in Europe, although it often represented and saw itself as such. Western Europe’s continued energy resilience in the wake of its complete shutdown testifies to this.

Aside from the infrastructural and spatial positionality of the Russian hydrocarbon network, I would argue that two additional contingencies have placed further limits on Russia’s ability to project socio-technical power into both the ECE realm and Europe more widely. First, we need to consider the regulatory competence and might of the EU itself. This is one domain where the EU is arguably a real global superpower (Kuus, 2020), and its presence – even the promise

of its presence – has led to far-reaching reforms of every aspect of the energy sector. From the 1990s and onwards, the EU’s frameworks and policies accelerated the transformation of post-socialist infrastructural systems along neoliberal lines, involving, among other developments, the horizontal and vertical “unbundling” of formerly integrated state-owned energy utilities, as well as the entry of private capital in practically all aspects of the energy sector (Bouzarovski, 2009). In socio-technical and political terms, debatably, this replaced one form of infrastructural domination with another, allowing Western companies to buy up and take control of assets across the entire post-socialist space. The process, however, was both accompanied by, and led to, the consolidation and expansion of the European single energy market – and the emergence of energy security and solidarity as an EU-level jurisdiction – which in itself curtailed the ability of actors like Gazprom to wield influence throughout the energy supply chain (Mišík and Prachárová, 2016).

EU funds and interventions also aided reductions in energy demand thanks to improvements and investment in renewable energy. Nevertheless, for most ECE countries and cities they were insufficient to counter the structural effects of neoliberal energy reforms and the legacies of past housing and energy systems. Across ECE, and especially countries like Bulgaria, Romania and even some of the Baltic states (not to mention the western Balkans), “energy poverty” – the inability to secure needed levels of energy in the home (Petrova, 2018) – remains at stubbornly high levels. The reasons for this situation can be traced to many of the restructuring choices made during the post-socialist transformation. For example, after the Czech town of Liberec decided to sell off its entire local energy system and practically all other public assets to foreign investors, a direct link emerged between high energy prices and limited heating options for local residents, on the one hand, and the near-monopolistic status enjoyed by the privately-owned energy utilities in the city, on the other (Bouzarovski et al., 2016).

The second contingency relates to what some might call “everyday energy geopolitics”. Drawing upon a significant body of work in the wider domain of critical geopolitics (Dittmer and Gray, 2010; Koopman et al., 2021), I refer here to the actions of citizens but also other governance actors across multiple policy levels in relation to energy security concerns in particular. An emblematic example, for me, was how the announcement of the Nord Stream pipeline, even when the pipeline was just an imaginary construct, triggered a vast new landscape of multi-scalar discourses and physical interventions aimed at ensuring the energy security of neighboring states and particularly Poland. More recently, the grassroots “fuck Putin, ride a bike” campaign (<https://errornogo.com/products/fuck-putin-ride-a-bike-sticker>, last access: 24 May 2023) and concerted bottom-up initiatives to decrease domestic energy consumption to reduce gas dependency on Russia (Moussu, 2022) reflect civic mobilization to overcome systemic infrastructural legacies. Across Europe –

and Central Europe in particular – we are seeing emergent networks of local energy communities and co-operatives. Many of these are built by citizens, for citizens, while using low-carbon energy resources. They actively mobilize the lexicon of energy security (Buck-Morss, 2000; Community Power, 2022).

These movements and interventions are nascent and fragile, and I am being highly speculative here about both their nature and their impact. However, it is fascinating to me, at least, as someone who has studied post-Soviet and post-socialist energy legacies for over 20 years, how radically different the current situation is to anything we have seen before within Europe. We are seeing energy solidarity with Ukraine emerge not only at the level of national governments (remembering that for a long time, energy security was not considered an EU competence, and the single energy market was sacrosanct) but also through the actions of everyday citizens. This mundane embodiment of anti-colonial energy security and transformation reflects the everydayness of energy practices that citizens of ECE experienced precisely as a result of the colonization of their region through infrastructural change.

To conclude, I have argued that energy projects are colonial not only at the Global North–Global South axis but also in relation to parts of what Martin Müller (2020) calls the “Global East”. The activities and legacies of Soviet domination in ECE are reflected not only in the scaffolding of the energy system, but also in the urban tissues and material fabrics of day-to-day social reproduction. The path-dependencies that underpin ECE’s complex positioning within the European energy polity are the product of these interconnected dynamics, and they directly influence Europe’s wider energy and climate development trajectories. In the post-Ukraine invasion era, they have brought attention to the possible horizons for energy system transformation – from sites of production to practices of demand (Balmaceda et al., 2019) – through emergent forms of everyday geopolitics. This is where we start to see the breakdown of colonial structures, not only in terms of transnational geo-energy reconfigurations, but also through the power of grassroots citizen action. Illuminating the spatial articulations and limits of energy imperialism has a significance that extends beyond the immediacy of the current crisis in Europe. We have been seeing how another hegemonic power – China – is actively seeking to shape global, regional and local infrastructural landscapes through its own specific modes of urbanization and development (Apostolopoulou, 2021; Wei Zheng et al., 2023). These socio-technical and geo-economic strategies remain even less recognized and understood than Russian infrastructural colonialism. But with the unfolding of recent events in Ukraine and Europe more broadly, at least we cannot say that we have not been warned.

2 Power flows: how energy geopolitics challenges Swiss “imperial innocence” – Christine Bichsel

The relevance and timeliness of the theme that Stefan Bouzarovski addresses are difficult to overstate. Energy is at the nexus of the multiple crises that Europe – and not just Europe – currently faces: climate, humanitarian and geopolitical. At the heart of this are the networked energy infrastructures that extend across Europe and the overlapping and shifting geopolitical configurations that shape Europe’s energy geography. Stefan’s intervention develops this theme by carefully examining the colonial past and present of these energy infrastructures against the background of geopolitics – from the everyday mundane to the world stage.

My first reaction to Stefan’s paper was to try to put Switzerland into the picture – or, perhaps better, on the map that Stefan was laying out before us. In 2022, the energy crisis also arrived in our country. We were announced possible energy shortages, unprecedented in the land of plenty that Switzerland has been for at least 70 years. My neighbor started hoarding firewood in the basement to feed his self-installed wood stove and kindly invited his neighbors to come to his flat during weekends to warm ourselves up. During summer, the news reported that the number of electric heaters sold had gone up massively, threatening to result in a blackout scenario, locally also called “Öfeli-GAU” (Swiss German for: heater worst-case scenario) (Aebi, 2022). Personally, and having experienced many Öfeli-GAUs during a winter spent in Dushanbe, Tajikistan, I considered buying a voltmeter to determine the best moments for doing laundry and baking cake. But then I learned that the Swiss grid will be shut down rather quickly without allowing the voltage to drop. Eventually, we received an all-clear signal for this winter from the Swiss government, the blackout scenarios did not materialize, and the energy shortage was hardly felt in the end.

On first thought, all this reflects Susan Leigh Star’s (1999) famous statement that infrastructure becomes visible solely upon breakdown – in this case, an anticipated one. Infrastructure’s invisibility fades away when it breaks. But I would like to probe both the nature of this invisibility and its rupture a bit further. First, the invisibility. Had I ever actually thought about the origins of the gas that flows freely into my apartment for cooking hot meals, taking hot showers, and making myself feel cozy and at home when I close the door to the outside after a long dark winter day? Frankly, before this spring, I had not. Only the war in Ukraine brought this to my mind and finally drew my attention to the flows of gas as flows of power that connect my very private home to the larger energy infrastructure and geopolitical configurations that Stefan describes. For the case of Berne, where I live, 50 % of the gas is provided by Russia. Warm meals, hot water and a heated flat are embedded in and the product of a particular geopolitical configuration, and that configuration is about to shift.

Swiss society has never been particularly inclined to take a closer look at the origins of its wealth, safety and comfort. These are usually framed as achievements and attributed, to a lesser or greater degree depending on political orientations, to the hard-working and dexterous nature of the Swiss people. Of course, this may be the short-sighted mundane horizon of people in capitalism's rat race that leaves little time and leisure for stepping back. But I would argue that such a view has also much to do with Swiss elites' hegemonic masking of the actual political-economic system based on relations of force that produce these privileges. Yet from time to time, history tends to present us with these moments of "unpleasant surprises", when we can no longer ignore the often highly problematic origins and sources of our well-being. Such an instance was the 1995 revealing of Switzerland's collusion in the crimes of Nazi Germany and Holocaust victims' assets deposited in Swiss banks, which deconstructed narratives of "neutrality" during World War II. The war in Ukraine made it clear that Swiss geopolitical and geo-economic entanglements continue, even if the prevailing narratives may divert our attention from them.

Stefan's paper speaks of Russia's self-defined "imperial innocence" (Kassymbekova and Marat, 2022), framing its rule of non-Russian people not as colonialism but as a gift of greatness that demands eternal gratitude. Undoubtedly, this is an important and recently challenged hegemonic imaginary that underpins Russian supremacist ideology. It is ironic, though, that Ukrainians fleeing from the horrible consequences of this ideology to Switzerland are again confronted with expectations of eternal gratitude: they should be grateful for Swiss hospitality that, in many Swiss people's understanding, is offered by a country completely disconnected from the war. The manifold ties that Switzerland does have with Russia through its financial sector, the commodity trade firms it is hosting – including hubs and operations by the Russian Gazprom – and the safe haven for the ultra-rich it offers are rarely considered. In blinding out these connections, the Swiss may even assume that Ukraine should rather accommodate the Russian aggression for the greater good of the continuity of former arrangements which guaranteed our privileged lifestyle (Balmer, 2022). It occurs to me that the term "imperial innocence" applies as much to Switzerland as it does to Russia, although in a different form. Most Swiss people stubbornly cling to the belief that Switzerland has nothing to do with colonialism. No glory, no guilt. The individual instances that occasionally pop up, almost rhizomatically, and disturb our – shall I say – blissfully ignorant complicity are still taken to be unfortunate exceptions. Stefan's paper, however, encourages us to think more systematically not just about Switzerland's hidden coloniality, but also about the inter-imperiality that shapes geopolitical configurations and manifests in highly paradoxical instances of two-sided framing of Ukrainian guilt and expectations of gratitude.

Stefan's paper outlines the relationships of obduracy and change that inform the energy infrastructure in Europe with

the ongoing reconfiguration of energy provision. In relation to this, it is worth taking a closer look at the theme of rupture in the form of discursive turbulence that the recent shifts have created. During the summer of 2022, fake ads appeared in Switzerland's public space, offering a telephone number to tell on neighbors who were suspected of heating up their apartment above the prescribed 19° (recently raised to 20) (McEvily, 2022). Russian state media gloatingly commented that Europeans who were afraid of sitting in dark cold flats during winter were offered the alternative to come to Russia where heating is plentiful. Recently, a Swiss-based Russian journalist's statement that Swiss citizens are asked to stock food to ward off an anticipated food crisis was circulated by Russian media – truthfully mirroring Soviet agitprop style (Reichen, 2022). While these instances may be anecdotal and even amusing, I suggest that they point to another important dimension raised in Stefan's paper: the relations between everyday geopolitics and forms of energy governance.

Clearly, energy provision has been and is a strategy of political stabilization in the Soviet Union and its successor states. Take, for example, Central Asia, where cheap electricity is arguably the most important state subsidy to citizens – more or less reliably delivered. The mostly authoritarian leaders of these countries take great care in fine-tuning their countries' energy systems in order not to jeopardize the political stability that depends on this basic provision. Yet Stefan's paper also reminds me of an influential book that I had read years ago during a postdoctoral fellowship in Singapore: Cherian George's (2000) edited volume "Singapore: The air-conditioned nation. Essays on the politics of comfort and control, 1990–2000". The collection of essays discusses, both literally and metaphorically, the importance of cooling as a technology of authoritarian rule in the island state during the 1990s. Stefan's paper shows that not just cooling, but also heating should be considered as a form of political and technological power that plays out from the world stage to everyday geopolitics.

To conclude, Stefan's intervention provides an inspiring and stimulating entry point to rethink Switzerland's position and, indeed, positionality in the networked infrastructures and shifting geopolitical configurations of Europe's energy geography. It draws attention to the highly unequal power relations that both shape and feed on the flow of energy, as well as to our very personal everyday complicity with current arrangements.

3 The energopolitics of the Russia–Ukraine war – Dominic Boyer

In his essay, "Russia, Europe and the Colonial Present", Stefan Bouzarovski surfaces in an insightful way what I would call the underlying "energopolitics" (Boyer, 2014) of the Russia–Ukraine war. Energopolitics are the web of socio-material relations linking energy systems to political insti-

tutions. As in Timothy Mitchell's pathbreaking study of the entanglement of coal and social democracy – or “carbon democracy” as he puts it (2009) – energopolitical analysis helps us to see how struggles over energy resources, and the conditions of possibility set by their material forms, can exert potent yet seemingly invisible force over political dynamics and ideas.

Bouzarovski argues convincingly that Soviet colonial legacies of energy have been reactivated in Putin's Russia. Putin has shown increasing willingness to wield fossil and nuclear fuel energy exports as a “geopolitical weapon” to extend Russian political influence, especially in eastern Central Europe. By their own admission, several European nations, notably Germany, underestimated Putin's interest in weaponizing energy exports, assuming instead that energy sales would help Putin fund the ongoing democratization and global market integration of Russia or that establishing critical trade relationships between Russia and the EU would at least reign in his regional imperial ambitions (Wintour, 2022). Putin's aggression in Ukraine has always involved energy resource motives, with one observer arguing that “Putin's annexation of Crimea was very much driven by undermining Ukraine's energy and gas diversification strategy” (Umbach, 2014). Indeed, the government Putin installed in Crimea immediately entrusted Gazprom to manage the peninsula's energy sources.

Yet what happened in Crimea only scratches the surface of a very complex energopolitical situation. Even before the Maidan Revolution and Victor Yanukovich's ouster, a struggle over gas imports was brewing. Although Yanukovich's government is normally glossed as “pro-Russian”, in only 2 years (2011–2013) it presided over a 37.8% decrease in Russian gas imports (Umbach, 2014). Worse still, the 2010 discovery of the Yuzivska field in Donetsk and Kharkiv oblasts threatened Russia with eventual Ukrainian independence from Gazprom. Though its resources would require unconventional techniques like fracking to be accessed, the Yuzivska field has been estimated to contain over 2 trillion cubic meters of gas reserves (Tully, 2015), the third largest deposit in Europe (Coalson, 2013). With the near depletion of Ukraine's conventional gas fields, the development of Yuzivska held the potential to substantially rebalance energy relations between Kyiv and Moscow in the decades to come. Although Russian firms bid for the exploration and production partnership, Yanukovich's government announced in 2012 that Royal Dutch Shell and Chevron had been chosen as the project partners for its largest shale gas fields, including Yuzivska (Reuters, 2012). This move to embrace Western partners was likely unsettling for Putin and his Gazprom allies, and shortly thereafter they took advantage of the revolutionary moment in Ukraine in 2014 to move the battlefield closer to the gas field (Umbach, 2014). Within a year both Chevron and Shell had pulled out of their partnerships “because of the fighting in the region and prospect of little profit from the project” (Tully, 2015).

Tellingly, the energopolitical dimension of the war in Ukraine continues to be downplayed today in reporting and analysis. The brutal conflict over the town of Bakhmut at the time of this writing in early 2023 is an excellent case in point. News media coverage suggests that the intense fighting near Bakhmut and tens of thousands of deaths over the past 6 months are best explained, on the Russian side, as a case of the Wagner Group seeking to prove its ferocity and operational value to Putin and as a matter of national pride and show of defensive tenacity for the Ukrainians. The geographic specificity of Bakhmut is rarely mentioned as compared with commentary on what performing military prowess means to both sides (e.g., Bertrand et al., 2023). As a recent Reuters (2023) analysis puts it, “The town has symbolic importance for both Russia and Ukraine, though Western military analysts say it has little strategic significance” (Reuters, 2023).

Mere symbolic importance is a very curious conclusion since, geologically speaking, Bakhmut's significance is substantial. The Bakhmut Depression is the southeastern edge of the Yuzivska field (Panova and Pryvalov, 2019). That the bloodiest section of the Russian–Ukrainian front line is the exact edge of Ukraine's most important gas frontier seems hardly a coincidence. Control over the Yuzivska field would considerably strengthen Putin's strategy of weaponizing Russia's gas exports. Even rendering Yuzivska a militarized no-man's-land or ruined waste could set Ukraine's movement toward energy sovereignty back for decades.

It would be an oversimplification of course to suggest that energopolitics are the only explanation for Russia's recent aggression in Ukraine. Ukraine has other resources that Russia eyes avidly, including its agricultural outputs. Even beyond his general imperial ambitions, Putin seems to hold a particular animus against Ukrainian sovereignty, arguing famously that modern Ukraine was a product of the Soviet era that now needs to be restored to its cultural and economic wholeness with Russia (Putin, 2021). Moreover, it is no secret that authoritarian regimes across the world (and through time) utilize wars to cement popular support (de Mesquita and Siverson, 1995), generating political identity and sympathy through the demonization of neighbors, victim narratives, and the experience of shared sacrifice. There is also the matter of, according to Putin, security concerns about NATO's eastern creep and Zelensky's post-invasion openness to joining the European Union. Still, as Bouzarovski's essay demonstrates, an energopolitical lens helps to reveal much about colonial relations both past and present.

Another aspect of Bouzarovski's analysis that I find intriguing is his argument that Russia is in reality not quite the “energy superpower” it imagines itself to be. Russia not only overestimated its military capacity to subdue Ukraine quickly but it also underestimated the “energy solidarity” that other European countries were willing to show Ukraine by price-capping and limiting or banning Russian oil and gas imports. The financial impact has been substantial

especially in recent months as oil prices declined from their peak in June 2022. According to a study by CREA (<https://energyandcleanair.org/publication/eu-oil-ban-and-price-cap-are-costing-russia-eur160-mn-day>, last access: 30 May 2023), the EU oil ban and price cap are costing Russia an estimated EUR 160 million per day.

Yet, at the same time, even depressed Russian oil revenues remain very substantial, according to the International Energy Agency (IEA) as much as EUR 15.8 billion in November 2022 alone (Lawson, 2022). As the world's third largest petroleum producer and second largest natural gas producer, Russia remains an extremely important player in global energy markets and for all intents and purposes a petrostate. Although Russian fossil fuel exports to Europe have scaled back dramatically, it is still selling its oil, especially to India, China and Turkey, all of whom are taking advantage of sanction discounts. India alone bought 33 times more Russian oil in December 2022 than a year earlier, making Russia India's main fossil fuel supplier (Sharma, 2023). So long as Russia can find avid buyers of its oil outside Europe, and so long as oil remains the lifeblood of the global economy, it is difficult to consider Russia to be anything less than a global petropower.

However, I take Bouzarovski's point as rather that after the Ukraine war, Russia will likely never again be able to wield the same energopolitical influence as it has previously in Europe, even eastern Central Europe, beyond a few stubborn outliers like Hungary and the Slovak Republic. Part of this reasoning has to do with technical and market developments, especially concerning natural gas. Gas markets in the era of liquefied natural gas (LNG) are less pipeline dependent than they have been in the past. European countries now have every incentive to make sure that they create sufficient LNG infrastructure to avoid ever having to rely on Russian gas imports again. Short of radical regime change in Moscow in the near future this seems a trend likely to reshape European energy markets decisively.

Even more significant, one hopes, will be the impact of what Bouzarovski calls "everyday energy geopolitics" or what I might call "energy citizenship", in other words, the intensification of civic activity around matters of energy efficiency and energy transition. The case of the electrification of the automobile sector is a well-known example. Global electric vehicle (EV) sales doubled in 2021 and are beginning to seriously contest internal combustion engine vehicles for market share in parts of Europe and Asia. The growth rate is actually staggering. In Germany in July 2022, EVs accounted for 14% of new passenger auto registrations. By December 2022, they accounted for 33.2% (<https://cleantechnica.com/2023/01/08/evs-take-55-of-the-german-auto-market-in-december/>, last access: 30 May 2023) of new registrations. Less known but equally critical is the case of electric heat pumps since one-third of European gas demand relates to heating buildings. According to a recent IEA report

(<https://www.iea.org/news/the-global-energy-crisis-is-driving-a-surge-in-heat-pumps>, last access: 30 May 2023), annual sales of heat pumps could more than triple in Europe this decade, reducing gas demand by nearly 7 billion cubic meters by 2025. Whether or not the Ukraine war has been a decisive catalyst shaping consumer behavior is unclear. Yet at the very least Putin timed his gamble to weaponize fossil fuel supplies poorly. Europe had already built substantial momentum behind efficiency and electrification ventures before the 2022 invasion, and activity in the past year seems to have only accelerated these trends. Every unused barrel of oil and cubic meter of natural gas spared takes ammunition away from Putin's fossil war machine. Yet it is important to recognize that because oil and gas can be so easily rechanneled to avoid embargoes and other kinds of political pressure, it is crucially important that energy citizenship needs to be coordinated and transnational in much the same way that the oil and gas industry has been for over a century (Mitchell, 2009).

In closing, I wish to caution that petrostates are exceedingly resilient. We underestimate at our own collective peril petrostates' survival instincts and willingness to use violence to maintain their hegemony. In the United States – itself a petrostate in my reckoning (Boyer, 2023) – the oil and gas industry deploys a powerful collection of instruments to make the fossil status quo seem both inevitable and desirable. It is truly an "all of the above" strategy: from funding anti-science climate denialism, to capturing political institutions and parties, to championing phantasmatic boondoggles like carbon capture and grey hydrogen technologies that inhibit investment in genuine alternative energy pathways, to planning a hard swerve toward petroplastics as a final emergency off-ramp. All of these instruments directly and indirectly aid the cause of petrostates like Russia by continuing to hold the global economy in the thrall of fossil fuels.

Change *is* coming, there is no denying that any longer. Just as incandescent light bulbs went from 68% of the US market to 6% in only 6 years (<https://www.nytimes.com/interactive/2019/03/08/climate/light-bulb-efficiency.html>, last access: 30 May 2023), the need for fossil fuels may even disappear more quickly than we believe is possible today. However, in the meantime, we should be prepared for more, not less, energopolitical violence emerging on the frontiers of change. Oil and gas will not go quietly.

4 The everyday geopolitics of households – Slavomíra Ferenčuhová

Stefan Bouzarovski's article is highly informative when it comes to understanding the power-shaped history of energy infrastructures in Central and Eastern Europe (CEE) constructed during the Cold War era and their legacies. In the final paragraphs of his intervention, Bouzarovski then mentions "emergent forms of everyday geopolitics", or "actions

of everyday citizens”, that started to appear in post-socialist CEE in response to Russia’s invasion of Ukraine in 2022. He mentions, specifically, grassroots campaigns or bottom-up initiatives to decrease domestic energy consumption, aiming to reduce dependency on Russia as well as to express “energy solidarity” with Ukraine. Next to other areas where “energy system transformation” may occur, Bouzarovski sees such citizen actions as one possible way forward to overcome systemic infrastructural legacies that reflect the history of Soviet domination in the region. However, he is careful not to assume and/or overstate the “nature and [...] impact” of these interventions. Still, his statements, which he calls “speculative”, are worth further exploration. For example, his observations provoke reflections about the complexity of processes through which practices of individual energy consumption change and which may eventually influence how (quickly) dependencies established during the socialist era can be reversed. Namely, it is reasonable to focus on the multiple motivations that lie behind shifts in everyday routines as well as various constraints on or opportunities for changing one’s behavior.

In this commentary, I underline this complexity to point out that some facets of “energy system transformation” in post-socialist CEE happening on the level of everyday life and as part of households’ daily reproduction may take place indirectly, unintentionally or at least “inconspicuously” (Ferenčuhová, 2022; Shove and Warde, 2002), while others are straightforward in their political motivation – like those expressed in grassroots campaigns. Moreover, some clear-cut intentions towards change may be difficult to put into practice by individual households given their economic situation, household structure and relations between their members but also the material environment, including the existing energy infrastructures upon which they already depend.

I focus here on the Czech Republic, one of the Central European post-socialist countries. According to information recently published by the Energy Regulatory Office, Czech households consumed 20 % less gas in 2022 than they did in the previous year (ERO, 2023). The debates that started after February 2022, however, went beyond reducing individual energy consumption in solidarity with Ukraine, although these were certainly present. For example, local groups of international movements like Greenpeace or Extinction Rebellion included limiting room temperature in homes on their lists of strategies available to individuals to reduce dependence on Russia’s raw materials and support Ukraine, together with other environmentally friendly practices to decrease energy consumption (Extinction Rebellion, 2022; Hrábek, 2022). Another response came from two students of medicine in Brno. Their individual initiative “Throw on a Jumper” called upon people to heat their homes less, wear more clothes and share their pictures on social media to spread the message (Koudelová, 2022). The argument was also adopted by others, for example, by the Ministry of Industry and Trade who motivated households to adopt saving

measures and designated them as a strategy in the “energy war” (Janouš, 2022).

However, rising prices also made many households insecure about the amount that payments for gas and, more generally, energy would represent in their budgets. According to a recent survey that mapped shifts in consumption practices in the months following Russia’s invasion of Ukraine, 69 % of Czech households had adopted some measures to reduce their energy expenses by December 2022 (for example, lowering room temperature, heating only some rooms, avoiding using energy-intensive appliances or insulating the home) (Focus Agency, 2023). The same survey found that Czech households have widely felt the impact of rising prices: 43 % declared that they needed to limit their consumption to meet their needs, including 10 % of households that could not meet their basic needs with their current income and needed to use their savings or borrow money. The way people shopped for groceries or cosmetics, not just how they used energy, also changed (Focus Agency, 2023). Thus, unsurprisingly, the changes in everyday practices towards lower energy consumption that Czech households have declared to have introduced in the past year inevitably reflect, and sometimes combine, both a political response to Russia’s invasion of Ukraine and prudence and/or an economic necessity.

Various motivations aside, what households can actually do to save energy is also conditioned by many factors. For example, low income does not easily allow for the adoption of energy-saving measures that require new investments, such as insulating roofs or walls, installing solar panels, or acquiring new appliances and technologies, even if some financial support may be available at municipal or national levels. Moreover, economic hardship complicates individual support for political decisions, like ending Czechia’s consumption of gas imported from Russia, should this mean rising prices (Focus Agency, 2022:29–30). Next, household structure, relations between its members and their everyday routines all influence how households consume energy (e.g., Bell et al., 2015; Strengers et al., 2016; Madsen, 2018). Moreover, material conditions also play a role. For example, households dependent upon centralized district heating systems – mentioned by Bouzarovski as one of the principles of Soviet housing planning, which is based on the concept of *mikroraiion* and adopted widely in Central and Eastern Europe – such as residents of individual flats in large 1970s and 1980s housing estates have fewer options to change or diversify the sources of energy they consume than, for instance, owners of detached single-family houses do in small settlements (where infrastructure like district heating is often not even available). Hence, *systemic infrastructural legacies* of the Soviet era in post-socialist CEE that influence how and what energy resources are used in Czech households vary – according to housing type, year of construction and type of reconstruction as well as its location in a municipality, the settlement size and the settlement’s position in the region. All of this influenced how energy infrastructure historically

developed and how today's individual households are connected to and dependent upon it (see, e.g., Bouzarovski et al., 2016). Yet, it also constrains or enables capacity among individual households to bring about change to the existing energy system through their everyday practices alone (mainly by saving energy, changing energy sources and adjusting the materialities in their homes).

In summer 2022, I was intrigued by saving (and energy-security) strategies adopted by one household I knew. Living in a house built in the first decades of the 20 century and using gas for heating, the family made several changes to the organization of their home, such as altering the uses of some rooms so that parts of the house could remain unheated (or at least less heated) during winter. In addition, the family invested in a fireplace, installed in the living room. To do so, they reconstructed a chimney connection that had been hidden from sight for several decades and thus reintroduced technology, and an energy source, that was used in the house by previous generations. The fact that the chimney and the connection were already in place (as part of the house's "historical infrastructure" but currently out of use) made the adjustment easier. Their decision to install the fireplace and use wood as a secondary heating source was not entirely random. The family mentioned at least four other households they knew of, all living in small settlements, that had made similar investments. Moreover, in 2021, wood was already the most common secondary energy source used by households that consumed gas as their primary energy source (CSO, 2022, Table 3-3.2).

It is important to note that adjusting one's housing for more cost-efficient living is not generally new to the Czech Republic. Renovations of the housing stock, including insulation or thermo-insulating windows, have been widespread in recent decades. In 2021, according to a survey in Czech households, 21.4 % and 7.5 % of the housing built before and after 1970, respectively, were left without any similar measures (with thermo-insulating windows being the dominant measure, however, while roof and wall insulation is less common) (Matějka and Štech, 2022).

Additionally, in the CEE, household practices that contribute (at least a bit) to saving different types of resources or that are "quietly sustainable" (Smith and Jehlička, 2013) are also relatively common, and some of them have been in place for quite some time. To name just a few, Czech households engage in producing and sharing food (Jehlička and Daněk, 2017), tend to reduce food waste (89 % of households in 2022; see Focus Agency, 2023; Jehlička, 2022), or repair old things (64 % of households; Focus Agency, 2023). A tendency not to waste water or energy in situations like heat waves and drought and instead coming with simple, energy-efficient everyday adaptations is also not unusual (Ferenčuhová, 2022).

Thus, the action and practice repertoires that eventually helped to reduce Czech household consumption of gas by one-fifth in a year (namely everyday savings, turning

to other energy sources and/or insulating the house) were mostly "available" or considered prior to Russia's invasion of Ukraine and were culturally acceptable. Nonetheless, at least in some cases, these actions were prompted by the events of 2022, perceived as either a political, economic or security issue or a combination thereof.

The simple point that I want to make in response to Bouzarovski's thought-provoking intervention, therefore, concerns one aspect of everyday geopolitics that can easily slip by unnoticed, as the practices are too mundane, routine, variously conditioned, questionably relevant and inconspicuous. Importantly, though, the straightforward aim to contribute to more systemic change, such as reducing the country's dependence on non-renewable resources, does not need to be reserved for people joining movements or initiatives like those mentioned above. Nor is it unusual that motivations are complex and economic goals easily combine with other aims, environmental or political, in one household. Yet, the geopolitical effect of everyday practices, and their impact on infrastructural legacies, may appear even if the stimulus of their change is not so clear. Bouzarovski mentions "emergent forms of everyday geopolitics", the first signs of the "breakdown of colonial structures, not only in terms of transnational geo-energy reconfigurations, but also through the power of grassroots citizen action" (Bouzarovski, this forum, Sect. 1). In order to understand the complexity of such transformation, I suggest including in this picture everyday routines and practices, which is not so straightforward in naming the issues of energy security and that may not even reflect the issue at all. Indeed, they may both enable as well as complicate the entire process.

5 Russian neo-colonialism and its dark justifications beyond the propagandistic Rubicon – Michael Gentile

When the troops crossed the Ukrainian border on 24 February 2022, Russia conclusively decided to "resurrect history" in its relations with the West in a move that blatantly unveiled the country's neo-colonialist ambitions. Undemocratically elected president and war criminal² Vladimir Putin wanted Russia to be recognized as a great, not just regional, power, first by proposing a set of unrealistic demands on the West in exchange for appeasement and subsequently by setting off a war of territorial conquest the likes of which Europe had not seen since World War II. At this point, the Kremlin crossed a propagandistic Rubicon towards which it had been moving for at least a decade, its perception and representa-

²The International Criminal Court (ICC) issued an arrest warrant against Vladimir Putin on 17 March 2023. Of course, it is unlikely that he will be brought to justice within the foreseeable future as he would have to be extradited from Russia (<https://www.icc-cpi.int/news/situation-ukraine-icc-judges-issue-arrest-warrants-against-vladimir>, last access: 30 May 2023).

tion of the West having evolved from that of partner to that of diabolical enemy, passing through the intermediate stages of competitor, rival, “partner” (with scare quotes) and adversary (see, e.g., RIA Novosti, 2022). In doing so, Russia pivoted from its previously successful strategy of geo-economic and “socio-technical” colonialism, whose characteristics are convincingly described by Stefan Bouzarovski in his opening contribution, towards one based on the imposition of brutal force.

Some, including myself, would argue that the point of no return was already reached in February 2014, when Russia occupied Crimea and unleashed its war on the Donbas. However, at that time, the response from the West was timid: the hearts and minds of most of its politicians were not yet ready to absorb the new reality created by this event, and besides, how could anyone survive without Russia’s vast hydrocarbon resources? Some sanctions were “slapped on” the country, but otherwise, business as usual prevailed. Mild castigation was chosen before deterrence, and an aggressive outburst set within a pattern of autocratic consolidation was treated as a one-off event, hesitantly, and against the background of the increasingly cacophonous and polarized politics in the EU.

Meanwhile, Russia continued its journey towards the dead-end of neo-colonialism by increasingly striving to delegitimize the sovereignty and statehood of its neighboring countries and of Ukraine in particular. This process culminated in the aforementioned war criminal’s notorious “historical essay” published on 12 July 2021 on the Kremlin’s website (Putin, 2021), which makes a number of points that – in hindsight for some, in foresight for others – outline the contours of Russian neo-colonialism and of its justifications in the 21st century, which are the following³:

- The sovereignty of Ukraine (and indeed of most if not all other former Soviet republics) is illegitimate and that the authors of “the right for the republics to freely secede from the Union [...] planted in the foundation of *our* statehood the most dangerous time bomb, which exploded the moment the safety mechanism provided by the leading role of the CPSU was gone”. Accordingly, “modern Ukraine is *entirely* the product of the Soviet era”.
- Ukraine was “shaped – for a significant part – on the lands of historical Russia”, meaning that the Ukrainian territory is rightfully Russian.
- “Russia was robbed” by the Bolsheviks, who were “generous in drawing borders and bestowing territorial gifts” because they believed in a world without nation-states.
- Russia and Ukraine are an inseparable economic unit whose “profound cooperation [...] 30 years ago is an example for the European Union to look up to”.

³All quotes are taken from Putin (2021); my emphasis italicized.

- Ukraine is not truly sovereign and that it is exploited by “external patrons and masters” as an “anti-Russia” for these actors to achieve their geopolitical goals of Russian containment. Indeed, as the war criminal explains, “the Western authors of the anti-Russia project set up the Ukrainian political system in such a way that presidents, members of parliament and ministers would change but the attitude of separation from and enmity with Russia would remain”.
- Ukraine is “Russophobic”.
- Russia as a state is a victim of Western (American) machinations and that Russians in Ukraine “are being forced not only to deny their roots, [and] generations of their ancestors[,] but also to believe that Russia is their enemy” to the extent that “the path of forced assimilation, the formation of an ethnically pure Ukrainian state, aggressive towards Russia, is comparable in its consequences to the use of weapons of mass destruction against *us*”.
- The residents of southeast Ukraine “were threatened with ethnic cleansing”.
- Ukraine is not interested in the fate of the people of the Donbas (in any case) and that it merely needed the conflict to sustain the “anti-Russia project, [which required] the constant cultivation of an internal and external enemy [...] under the protection and control of the Western powers”.
- Russia “will never allow [its] historical territories and people [...] living there to be used against Russia” and that anyone attempting to do so would “*destroy their own country*”.
- The “true sovereignty of Ukraine is possible only in partnership with Russia, [...] for we are one people”.

In short, the Russian war criminal accuses an ostensibly in-existent Ukraine and its alleged Western mentors of the very same crimes that Russia itself has been committing on Ukrainian soil for nearly a decade, while suggesting that Ukraine “exploits the image of the victim of external aggression”. Such claims are neither novel nor surprising for anyone versed in the parallel and increasingly remote universe of Russian propaganda which aims at portraying Russia as a besieged fortress surrounded by enemies hellbent on destroying the country (Yablokov, 2018). Victimhood is thus Russia’s first justification for its “special military operation” in Ukraine.

The second justification is more traditional in its defense of colonialist practices. As Stefan Bouzarovski explains, Russia sees itself as both a civilization reference point and a great modernizer for its colonial subjects. A central trope in Russian neo-colonialist discourse is that Russia “created”

rather than conquered its surrounding nations and that the latter are unable to survive, let alone prosper, outside of Russia's custody. However, by having "created" most post-Soviet republics, the Kremlin also implies that these states are Russia's offspring, that their sovereignty is limited and that the legitimacy of their statehood falls short of, e.g., France's or Norway's.

The third justification is that Russia is taking back what was unjustly taken away from it. The Kremlin's rhetoric increasingly suggests that Ukraine is "artificial" and that it was (unfairly) carved out of what is, in fact, Russian land, implying that the country has no right to exist at all. By concluding that Russians and Ukrainians are "one people", by systematically failing to mention Ukrainian President Volodymyr Zelensky by name, and by constantly repeating that the country is ruled by external "patrons and masters" (because of it being controlled by the West), the Russian war criminal is in fact suggesting that Ukraine consists of Russian land occupied by foreign forces, hence the narrative that Russia is *not* at war with Ukraine but with the West. In his own words a few weeks ago "[the West] started the war, while we have used and are using force to stop it" and "[Russia is] defending the lives of people, *our own* homes, [but] the goal of the West is unlimited power" (Putin, 2023, my translation and emphasis).

Where the war criminal's words stop, the state media's begin: by increasingly invoking dehumanizing language, Moscow's chief propagandists – Margarita Simonyan, Vladimir Solovyov, Olga Skabeyeva and Dmitry Kiselyov – are instrumental in creating the conditions for the Russian population's acceptance of its government's genocidal policies. "When a doctor is deworming a cat" – Vladimir Solovyov explained on prime-time television – "for the doctor, it's a special operation, for the worms, it's a war, and for the cat, it's a cleansing" (Cole, 2022). Another Russia Today (RT) propagandist, Anton Krasovsky, went as far as to suggest that Ukrainian children should be drowned or shoved into huts and burned (Roth, 2022). While these statements are extreme in their explicitly genocidal rhetoric, they merely represent an escalation of an established Russian media trend. In 2014, when Channel 1 (*Pervyi Kanal*) anchor Dmitry Kiselyov exaltedly declared that "Russia is the only country in the world that is realistically capable of turning the United States into radioactive ash" (Kelly, 2104), this was mostly viewed as empty rhetoric aimed at exciting the domestic masses. Nowadays, calls to "nuke" the West are made regularly and have long ceased to raise eyebrows.

To conclude, despite having unleashed a war of re-colonization against Ukraine, Russia tries to brand itself as the leader of the global decolonial movement, a role it recycles from the years of the Cold War when the Soviet Union capitalized on the resentment felt against former colonial powers in many parts of the developing world (McGlynn, 2023). This contradiction finds its perverse (propagandistic) resolution by relying on allegations of Russian victimhood,

by reminding everyone that Russia did not have any colonies when other countries did (which is, mildly speaking, debatable), by promoting Russian civilizational leadership and superiority in comparison with the "decadent" West, by denying the existence of Ukraine's statehood, and, ultimately, by dehumanizing its inhabitants through increasingly unhinged genocidal rhetoric. Ukrainians are either "us", as in Russian, or they are at the service of the West. The latter must therefore be "de-nazified" and their children drowned or burnt.

6 Thermodynamic imperialism: the Kremlin's wet dreams of ejecting chaos and unbounding space – Vlad Mykhnenko

This contribution to the debate on Russia, Europe and the colonial present brings together several closely linked events which – alongside the people participating in them – have unleashed enough kinetic energy to kill and maim hundreds of thousands of people in just 12 months. Being inspired and challenged, in equal measure, by Stefan Bouzarovski's intervention on the lasting power of energy colonialism, my aim here is to expose the key features of contemporary Russian imperialism as a concept and the Kremlin's professed lust for territorial expansion and colonial domination as a practice. The empirical vignettes described below are assembled to uncover this exemplar of imperialism and colonialism as a theory-to-practice dyad. They involve (a) a 2021 sketch of pseudoscientific "thermodynamic" theory of imperial geopolitics pencilled by the Kremlin's chief adviser on Ukrainian affairs, (b) a 2016 televised geography lesson from the chairperson of the Russian Geographical Society's board and (c) an original operational plan for achieving control over Ukraine drawn by Moscow in the run-up to its full-scale invasion on 24 February 2022.

6.1 Thermodynamic imperialism of Vladislav Surkov: towards unrestricted expansion

Three months prior to the Russian invasion, Vladislav Surkov, the former first deputy chief of the Russian Presidential Executive Office (1999–2011), deputy prime minister of Russia (2011–2013) and a special adviser of President Vladimir Putin on relationships with Abkhazia, South Ossetia and Ukraine (2013–2020), published a piece entitled "Where has the chaos gone? Unpacking stability". In his article, Surkov (2021) – the most creative and influential of the Kremlin ideologues and mastermind of Moscow's attempt at creating a New Russia (*Novorossia*) puppet state in southeastern Ukraine in 2014 (Mykhnenko, 2020; Suslov, 2017) – has sketched out his theory of imperialist geopolitics.

Unlike the late 19th–early 20th century founding fathers of geopolitics, e.g., Friedrich Ratzel and Halford Mackinder, who appealed to evolutionary Darwinist notions of the state as a biological organism necessarily expanding in its growth

(Kearns, 2009; Klinke, 2018), Surkov's geopolitics is rooted in thermodynamics. According to the second law of thermodynamics, a physical law cited by Surkov as the basis for his pseudoscientific musings, the entropy of an isolated system always increases as the system evolves towards thermal equilibrium: no system operating in a closed cycle can convert all the heat absorbed from a heat reservoir into work, leading to an increase in entropy of the universe (entropy production) that results from this inherently irreversible process (Jelley, 2017; Park and Allaby, 2017). Jumping from the realm of physics to human evolution and back again, Surkov offers an allegedly scientific solution for dealing with Russia's increasing total entropy – interpreted as social malaise, lack of order and chaos and understood as an inherent and irreversible phenomenon present in all (closed) systems. His radical policy proposal harks back to Joule's free (unrestricted) expansion, a thought experiment in classical thermodynamics involving ideal gases, during which (1) a gas completely fills the vessel or chamber in which it is kept, and (2) when the valve between two adjacent chambers, initially closed, is opened, (3) the gas irreversibly expands into an evacuated insulated chamber, completely filling it, too, as a result (Escudier and Atkins, 2019). In a similar vein, Surkov argues the following (emphasis added):

Social entropy is very toxic. It is not recommended to work with it at home. It needs to be taken somewhere else, transferred for usage into an alien territory. Exporting chaos is nothing new... *It is a discharge of internal tension* (which Lev Gumilev vaguely called passionarity) *through external expansion*. The Romans did it. All empires do this. For centuries, the Russian state, with its harsh and sedentary political interior, was preserved solely thanks to the relentless striving beyond its own borders. It has long forgotten how and, most likely, never knew how to survive in any other way. For Russia, constant expansion is not just one of the ideas, but the true existential of our historical existence... *Russia will expand not because it is good, and not because it is bad, but because it is physics*. (Surkov, 2021)

Just 9 days before Russian tanks rolled across the Ukrainian border on the way to Kyiv, Surkov had published another piece – this time about getting ready for the return of “geopolitics in its original form”. Despite his many post-modernist fictional, poetic and dramatic stage exploits, Surkov's last pre-war intervention was unvarnished, Ratzelian *Lebensraum*.

Territory size matters. Control over space is the basis of survival... Hence, there is a lot of geopolitics ahead: practical and applied, and even, perhaps, of contact type. But how could it be otherwise, if one is cramped and bored, and awk-

ward... for it is unthinkable for Russia to remain within the boundaries of this obscene world/peace⁴. (Surkov, 2022)

To note, Surkov's thermodynamic theory of Russia's gas-like unrestricted expansion was published in an in-house online magazine of his pet private think tank called *The Foundation Centre of Political Conjunction*. In the early 2000s, this think tank was made famous when its inaugural director – Konstantin Simonov – published two volumes of conservative geopolitics concerning the Russian oil and gas sector and the “upcoming” and “inexorable” conflict over the world's dwindling hydrocarbon fuels entitled *The Energy Superpower* (Simonov, 2006) and *A Global Energy War: Secrets of Modern Politics* (Simonov, 2007). Written in a fairly conspiratorial and accessible fashion, these sensationalist bestsellers warned the Russian leadership directly to get ready for an imminent Western “Crusade for Oil and Gas”. The new global energy war will be waged by the USA and the European Union, forming an aggressive “Energy NATO”, and flanked by India and China, another two “hydrocarbon sharks”, which will attack the nations rich in “black gold” and “blue fuel” – invoking Mackinder's vision of Heartland, encompassing not only Russia and Central Asia, but also the Persian Gulf states, parts of Africa and South America.

The narrative of resource wars and the battle for *Lebensraum*, popularized by Simonov and, especially, Russian fascist philosopher Aleksandr Dugin (2016), soon entered the realm of public policy. In February 2013, Army General Valerii Gerasimov, serving as the chief of the general staff of the Russian armed forces, announced Russia's new military doctrine, stating “for the period up to 2030, the threat of a major war may increase significantly”, for the leading world powers would fight “for fuel and energy resources, markets for goods, and *living space*” (Felgenhauer, 2018; emphasis added). Similarly, the last pre-invasion edition of the magnum opus on “challenges and threats to Russian national security” edited by Major-General Korzhhevskii (2021:213, 435), deputy head of the general staff's Military Academy, debates the conundrum of nature being simultaneously a “warehouse of resources” to be conserved, an expanding “waste dump” of human habitat and *zhiznnoe prostranstvo* (*Lebensraum* in Russian) currently suffering from “overpopulation”.

6.2 Borderless Russia: a geography lesson from Vladimir Putin

The imperialist outlook of Surkov, as expressed in writing, though not in practice, is purposefully indefinite in terms of its colonial gaze. Vladimir Putin, who has employed Surkov since 1999, has shared this perspective, to an extent (Suslov,

⁴In the text, Surkov wordplays with the double meaning of the Russian *mir* [МИР] as both “peace” and “world”.



Figure 1. “Russia’s borders end nowhere!”: Vladimir Putin grins mischievously, when answering his own question “Where do the borders of Russia end?” amongst the giggling participants of the Russian Geographical Society’s awards. The Moscow Kremlin, 24 November 2016. Source: Russia’s Presidential Executive Office (CC BY 4.0).

2018). During an award-giving ceremony at the Russian Geographical Society (RGS) in 2016, Putin – as chairperson of the RGS board of trustees – spoke briefly with two geography wonderkids. Having first quizzed Timofei Tsoi, aged 5, about the capital of Burkina Faso, Putin turned to Miroslav Os-kirko, aged 9, whom the RGS public relations team dubbed “the boy with satellite vision” for his ability to recognize any country in the world or any Russian region by its outlines on the map. “Where do the borders of Russia end?”, asked Putin. “The borders of Russia end through the Bering Strait with the United States and...”, Miroslav began to answer. Putin interrupted him, proclaiming “Russia’s borders end nowhere!” (see Fig. 1).

Just 2 years previously, the Russian Geographical Society (RGS), founded in 1845 by Emperor Nicholas I to map his expanding tsardom, made the headlines for similar border-trespassing reasons. Following the Russian occupation of the Crimean peninsula and its annexation in March 2014, the RGS dispatched a geographical expedition to survey the newly acquired territory, including the Crimean coast and the shelf zone (RGS, 2014a; Suslov, 2014). The RGS-sponsored maps of the “Unknown Crimea” were exhibited at the RGS headquarters in St. Petersburg in December 2014 (RGS, 2014b), with a special report delivered to and commented upon by the chairperson of the RGS board of trustees – President Putin. “Being a discoverer” himself, Putin noted “Crimea’s shoreline is about 750 kilometres long” (RGS, 2014c).

The role of geography, geographers and their learned societies as enthusiastic collaborators in imperial conquest through centuries is, of course, well documented (Johnston and Sidaway, 2016; Driver, 2000). Indeed, one historiographic account of geography even called it the science of imperialism par excellence (Livingstone, 1993). Admittedly,



Figure 2. The crystal globe gazing: president of the RGS Sergei Shoigu (left), chairperson of the RGS board of trustees Vladimir Putin (center), and general director of the Moscow Kremlin Museum Yelena Gagarina (right) at the RGS awards ceremony in the Moscow Kremlin, 24 November 2016. Source: Russian Presidential Executive Office (CC BY 4.0).

David Livingstone (1993:220) has warned us against perceiving geography “just as the scientific underwriter of overseas exploitation”. Yet, since the Russian 2008 invasion of Georgia, if not earlier, the RGS ceased to function as an independent learned society and professional body for geography in Russia, being turned into another organ of the state, with Defense Minister Sergei Shoigu becoming the society’s president and President Putin acquiring the post of its chairperson (RGS, 2014a, b). Soon, the composition of the RGS board of trustees became a mixture of the Forbes’ list of Russian billionaires and its most powerful people list. With such a level of sponsorship, the RGS annual award ceremonies have subsequently developed into lavish, grand affairs (see Fig. 2). At the time of writing, 37 out of 40 RGS trustees were subject to various international personal sanctions (see Supplement).

Putin’s forays into geography were soon followed by history. In 2020, he authored an 87-page-long pamphlet about World War II, blaming the UK, the US and Poland (!) for provoking it. The following year, Putin (2021) returned to the issue of Russia’s never-ending border in a 7000-word-long pamphlet *On the Historical Unity of Russians and Ukrainians*. In it, the Russian cartographer-in-chief reiterated the old tsardom tales of the “original 12th century meaning” of Ukraine as *okraina* or periphery and accused the Bolshevik communist leader Lenin of creating modern Ukraine on the lands of historical Russia: “One fact is crystal clear: Russia was robbed, indeed”. To remedy such a gross historical injustice, in Putin’s words, Ukraine – suffering under the yoke of a “Nazi regime” – should be reunified, “for we are one people”. After the publication, the essay was distributed across the armed forces of the Russian Federation during the summer of 2021.

6.3 From fiction to real life: the Russian imperialism-cum-colonialism in action

Historically, Russian tsars were never squeamish about describing their colonial campaigns across the vast Eurasian landmass simply as *pokorenje* (subjugation) of Siberia and the Caucasus and *zavoievatel'nye pokhody* (conquests) in Central Asia. By contrast, the Kremlin rulers of today and yesterday would never frame their imperial ambitions explicitly as colonization. Yet, as Bouzarovski argues, the Soviet colonial legacy continues to play a vital part in post-Soviet practices of territorial domination and exploitation. Indeed, since 2014, this legacy has been unfolding through the re-colonization of southern and eastern Ukraine via a twin process of forced displacement of the Ukrainian population from the Russian-occupied areas and settlement of those areas by Russian in-migrants. Whilst the number of Ukraine's internally displaced people reached 1.8 million between 2014 and 2022, effectively halving the population of its easternmost war-ravaged provinces, during the same time, the population of the Russian-occupied city of Sevastopol alone increased by 161 920 residents or 42 % (Mykhnenko et al., 2022). No reliable migration data exist in relation to the non-government-controlled areas of eastern Ukraine, which were not formally annexed by Russia before 2022. First-hand witness accounts collected by the author over the years point to a much smaller-scale operation, primarily involving the families of Russian officers stationed in the area and settlers from the neighboring Russian provinces like Rostov-on-Don.

As a clear example of the colonial nature of the 2022 Russian invasion into Ukraine, on 5 March, Ukrainian military-intelligence-related sources published a 1000-word, five-page-long document entitled *The Action Plan to Create a System of Control over Economic and Political Processes in Ukraine*. The author's copy of the *Action Plan* was obtained independently and directly from his verified source in one of Ukraine's national security agencies. The document consists of an annotated list of a host of measures to be taken during the Russian colonization of Ukraine, starting with taking over its (1) banking; (2) transport; (3) energy sector; (4) wholesale and retail trade; (5) "denazification" of education and the official status of Russian as the second state language; (6) the insertion of Ukraine into the Russian-dominated Eurasian Economic Union; (7) fiscal affairs, including the printing of money to cover public expenditure and "demilitarization" austerity, including the defunding of the Ukrainian armed forces, national security apparatus, foreign ministry and diplomatic missions abroad; (8) political and legal measures, including the dissolution of the *Verkhovna Rada* (parliament), government, high courts and all sub-national public administrations up to the municipal level; (9) take-over and confiscation of assets of Russia-hostile owners of all the strategic industries; and (10) the creation of various puppet state organs, kangaroo courts for Russia-hostile elements, and the gradual partition and dis-

memberment of rump Ukraine through false referendums and/or simple majority votes by "legitimate" local governments (see Supplement).

6.4 Russian imperialism sans frontières: the Kremlin's entropy production for export

Stefan Bouzarovski has urged the geographical community to start paying serious attention to the overlapping colonial and post-colonial socio-technical and geopolitical realities in the Global East, for they are enduring and continue to be socially reproduced. As of the time of writing, the outcome of the Kremlin's entropy production for export into its Ukrainian colonies, both imagined and real, has generated so far between 330 000 and 500 000 casualties, with about USD 1 trillion of material and economic losses. On 11 March 2023, Russia controlled 18.1 % of Ukraine's land mass, in its internationally recognized borders, with 7.3 % being occupied and illegally annexed since 2014 and the rest being captured since the large-scale invasion. During this period, the thermodynamics of Russian imperialism has released enough internal tension to eject around 1 million Russians fleeing mobilization overseas and over 7 million Ukrainians fleeing the Russian invasion westwards.

Further research is needed to provide a theoretically informed account of explanations for the most recent expansion of Russian control, fully recognizing that imperialism is typically a matter of accident as well as design (Jones and Phillips, 2005). So far, the Russian example under investigation here has illustrated the complex and, at times, contradictory inner workings of the phenomenon fairly well. On the one hand, unlike the old "civilizing" Western imperialism of the 19th century, purportedly bringing order and organization into "backward" and "chaotic" lands overseas, today's Russian imperialism is aimed conceptually at expelling its own chaos and disorder outwards, thus fixing the regime's internal contradictions in the process. At the same time, as witnessed during the 2022–2023 military campaign, both Moscow's invasion plans and its colonial practices have involved a great deal of disciplining and punishing of the recently conquered Ukrainian subjects. If Ukrainians prior to the invasion were not portrayed by the Kremlin as the racial "other" but "the same people", it is highly plausible that over the medium to long run, Russia's colonial role over newly occupied parts of Ukraine – if realized – would echo the earlier Western colonial model of othering, subjugation and dehumanization.

7 On the possibility of an anti-colonial geopolitics – Zeynep Oguz

Stefan Bouzarovski's provocative essay invites geographers to a multi-layered analysis of Russian energy politics against the backdrop of the "colonial present" (Gregory, 2004) while providing a useful lens to rethink hegemonic concepts that dominate geopolitical thought today. Bouzarovski situates

contemporary Russian energy politics in a symbolic and material landscape that entails a strategic use of past Soviet power in the present. This popular ideology both legitimizes contemporary imperial projects that claim to “take back” energy infrastructures in former Soviet territories and fuels geopolitical imaginaries of “imperial innocence” that further place Russia as an energy superpower. Decentralizing these arguments, Bouzarovski argues that energy politics should be analyzed as colonial projects not only across the Global North–Global South axis but also within the “Global East” (Müller, 2020). Further, Bouzarovski takes seriously the role of what he calls emergent forms of everyday energy geopolitics in countering Russian energy politics and geopolitical projects: everyday actions of citizens, for Bouzarovski, combine both the imperative to rearrange hegemonic geo-energy configurations and anti-colonial elements on a grassroots level. In making these arguments, he provides a compelling account of historical, social and techno-political factors that pose limits to Russia’s ability to secure its colonial geopolitical project in Ukraine and beyond.

I find Bouzarovski’s analysis an important intervention to current discussions on coloniality, imperialism and geopolitics in geography, anthropology and “energy humanities” (Szeman and Boyer, 2017). Debates in geopolitics often fail to take into account the uneven power relations that constitute non-Euro-American geographies. When the United States or Western European powers are considered to be the only modern imperial powers, the role that states such as Russia play in perpetuating colonial acts – although often in a more limited capacity – is overlooked. These omissions further align with Russia’s self-owned discourse, which presents itself as both “victimized by the West and entitled to regional dominance in the former Soviet territories” (Kassymbekova and Marat, 2022:1). In ways that seem to be uncannily similar to their manifestations in Russia, geopolitical ideologies and practices in contemporary Turkey are also characterized by a neo-imperial vision, a self-described attempt to center itself as a regional power, and territorial politics of irredentism and expansion. Turkish territorial aggression – especially recent Turkish military operations in Iraq and Syria and the ongoing occupation of northern Cyprus –, for example, has been partly animated by desires to recover “lost” territories of the Ottoman Empire in the aftermath of World War I (Oguz, 2023b).

Bouzarovski’s essay, which complicates dominant North–South categories in geopolitical thought, speaks to the urgency of establishing a more nuanced understanding of imperialism and coloniality – one that neither fuels the agendas of the apologetics of Western colonialism and American empire nor erases the ongoing reverberations of Russian imperialism and colonialism. I believe that the essay also calls for a much-needed historical sensibility to the analysis of contemporary geopolitics: more than an uncanny coincidence, for example, the confluence of Russian and Turkish geopolitical imaginaries invites us to take seriously the aftermath of World

War I and its extraterritorial effects that continue to haunt the world (see Elyachar, 2021; Nucho, 2021). Further, it highlights the urgency of understanding the present through the lens of Indigenous histories – such as Armenian and Kurdish accounts of ongoing anti-imperial and *anti-colonial* (rather than postcolonial) struggle in and beyond Turkey. In the context of Russia, this means attending to internationalist traditions of historiography, geography and anthropology from the perspective of former Soviet citizens and ethnic minorities within Russia today, including the Tatars, Georgians and Ukrainians.

In Turkey, what animates neo-imperial territorial desires are also the very material qualities of Anatolia’s geological setting and the materials under the ground that are made into a resource. In addition to taking into account the unfinished political histories and watershed moments that continue to haunt post-imperial nation-states such as Turkey and Russia, as well as centering our understanding of the colonial present around Indigenous histories, an anti-colonial approach to energy geopolitics further needs to grapple with the “geo” that is affixed to the term. Recent work in geography has demonstrated how state politics, territorial disputes and energy regimes are shaped by the geophysical and geological characteristics of the underground, terrain, ocean and air (Elden, 2013; Steinberg and Peters, 2015; Dixon, 2021; Zee, 2022). Anthropologists have further demonstrated that energy resources are not natural things with essential qualities that are just sitting “out there” or “down there” waiting to be extracted but are brought into being through arrangements between techno-political practices, discourses and representations (Ferry and Limbert, 2008; Kneas, 2018; Richardson and Weszkalnys, 2014).

With its excessive materiality and its unknowability by petroleum geology and geologists, the underground becomes a literal ground for the constant flourishing of speculations that are simultaneously shaped by the histories of imperial collapse and extraterritoriality that continue to haunt the political present in Turkey (Oguz, 2023b). Thinking about Bouzarovski’s account of Russian energy politics from the point of view of the unstable underground that both informs and unsettles colonial and neo-imperial geopolitical imaginaries and practices in Turkey, I am urged to ask the following questions: set in a very different geophysical and tectonic setting, characterized by the particular geochemical qualities of petroleum and gas in the “depths of Russia” (Rogers, 2015), how does the materiality of the pipelines play a role in shaping contemporary energy geopolitics in the region? Finally, if states are always “leaking” (Anand, 2015), how do these geo-techno-political arrangements disrupt, limit or reveal the fragility (Oguz, 2023a) of Russian geopolitical projects?

In my work on oil politics in Turkey’s Kurdish region and offshore gas politics in Cyprus, I have been thinking about how ordinary people conspire with the earthly materialities of the underground, the ocean and energy infrastruc-

tures. Most recently, I have been writing about the geopolitical conflicts triggered by the discovery of massive offshore hydrocarbon fields in the eastern Mediterranean Sea. The multi-ethnic, multilingual and multi-religious island of Cyprus has been territorially divided since the Turkish invasion of northern Cyprus in 1974. Subsequent attempts by the United Nations to forge a solution to the issue have failed. In 2011, oil firms announced the discovery of massive gas deposits in Cypriot waters in the southeastern Mediterranean Sea. Further offshore gas discoveries in 2018 and 2019 triggered new geopolitical disputes between Turkey, Cyprus and Greece over maritime sovereignty rights and the political future of the island. Since the opening of the first checkpoint between the Republic of Cyprus (RoC) and the Turkish Republic of Northern Cyprus (TRNC) in 2003 along the buffer zone in the capital Nicosia, grassroots dialogue and peace movements have flourished on the island. In particular, two recent organizations, *Unite Cyprus* and *Don't Dig*, have been advocating for both leaving the gas under the seabed and uniting the island on democratic, just and sustainable principles. Echoing the rise of youth climate movements (Eriksen, 2021) in the past decade, these inter-communal movements in Cyprus are also rooted in the history of internationalist and democratic movements that have advocated for the unification of the island (see Trimikliniotis and Bozkurt, 2012). Many contemporary environmental movements adopt inherently intersectional forms of mobilization that challenge both the climate emergency and other forms of injustice (Dawson et al., 2022; Dawson and Gómez-Barris, 2022; Schmidt, 2022; Sultana, 2022). In Cyprus, imagining energy futures also necessitates a confrontation with the ongoing Turkish occupation and demands for greater (environmental and political) justice on the island (Oguz, 2022). In other words, they are anti-extractivist and anti-war at the same time.

In addition to grassroots movements in Central Europe that aim to decrease domestic energy dependency on Russia that Bouzarovski mentions, I believe that anti-war activism in Russia (e.g., ROAR, RAW and Feminist Anti-War Resistance) also deserves attention: the *Ostanovi Vagony* (Stop the Railway Wagons) movement has been linked to sabotage incidents that have derailed military freight wagons since the start of the Russian invasion of Ukraine (KHPG, 2022). This form of civil militant action can be understood as a disruptive strategy of conspiring with the materiality of military (and energy) infrastructures. If colonial and imperial projects of territorial expansion and domination are materially performed through infrastructures, these movements counter-weaponize the very infrastructures that sustain these projects' military and territorial power.

In this short response, I have offered reflections on the possibility of an anti-colonial geopolitics that unsettles the hegemonic worldview of geopolitics (Last, 2015) from the perspective of my own research in Turkey and Cyprus. I believe that paying attention to anti-war activism in Russia and other warmongering states, although also “nascent

and fragile”, as Bouzarovski cautions us in the context of Central European grassroots movements, is politically significant. So are Indigenous accounts that de-center Russian, Turkish, British or North American narratives of civilization, population and identity. The urgent task of composing an anti-colonial geopolitics can only begin with accounts that are centered around their histories, struggles and aspirations.

8 Internal colonization and Indigenous rights in Russia – Maria Tysiachniouk

Stefan Bouzarovski looks at Soviet and newly built Russian oil and gas socio-technical infrastructures as being at the core of Russia's political and economic power across large parts of the former Soviet Union and beyond. Therefore, he sees specific energy projects as part of a broader Russian colonial project. While Bouzarovski hence directs our attention to forms of colonial expansion beyond the Global North and the Global South, in this commentary I highlight the still-overlooked nature of internal colonialism (Etkind, 2013) through infrastructure for oil and gas extraction in Russia that is built on traditional Indigenous Peoples' lands.

The relationship between infrastructures, Indigenous groups and colonization has been discussed in various settler colonial contexts. Curley (2021) sees infrastructures, along with legal and political factors, as part and parcel of possible marginalization and deprivation of Indigenous Peoples (IPs) on their native lands. Doherty (2019) goes even further, introducing the term “infrastructural violence” with regard to colonization of Indigenous Peoples. For historical and contemporary Russia, however, scholars have only recently started to apply the concept of infrastructural violence for understanding social realities. The literature on Russian internal colonization is more elaborate, however. Alexander Etkind envisions Russian imperial history as the continual internal colonization of peoples of different ethnicities within the expanding boundaries of Russia (Etkind, 2013). For instance, Russian expansion into the north has penetrated deeply into the aboriginal lands since the 17th century in Tsarist Russia, infringing on the sovereignty and self-determination of Indigenous Peoples. In Soviet times, relationships between Indigenous People and the state became paternalistic, and the former became dependent on the welfare of the state (Bartels and Bartels, 1987).

In this commentary I thus ask if we can understand the Russian past and ongoing energy infrastructure projects as part and parcel of internal colonization.

8.1 The regulation of relations between the state, oil and gas companies, and Indigenous peoples

Russian oil and gas deposits are mostly located in the northern regions where many Indigenous groups live: Nenets Autonomous Okrug, Yamal Autonomous Okrug, Khanty-Mansiysk Autonomous Okrug, Irkutsk Oblast and Sakhalin

Island. The oil deposits are also to be found in flag nations, such as Komi Republic, Buryatia and Sakha Yakutia, where the larger ethnic groups (Komi, Buryat, Sakha) have little power to negotiate with oil and gas companies. Federal laws in Russia create favorable conditions for the operation of oil and gas industries on Indigenous Peoples' traditional lands. State-owned land may be leased simultaneously to multiple users, such as oil companies and Indigenous reindeer herders. Russian legislation acknowledges land rights only for Indigenous groups whose population does not exceed 50 000 persons, naming them the "Indigenous Minorities of the North, Siberia and Far East". These constitute around 260 000 people, which is less than 0.2 % of the total Russian population. In 2001, the federal law on Territories of Traditional Nature Use (TTNU), which recognizes Indigenous land tenure, was enacted. However, only in the Khanty-Mansiysk region was the regional legislation developed, while several hundred territories in different regions are still not recognized. This misrecognition is one facet of an ongoing colonial relationship between the Russian state and Indigenous Peoples.

The officially recognized rights of Indigenous Peoples, such as receiving compensation for lost land, significantly depend on what kind of land is used by Indigenous Peoples. For example, in the case that Indigenous reindeer herders lease land designated for agriculture from the state, as for instance in Nenets and Yamal Nenets autonomous okrugs, they can be compensated if oil infrastructure projects occupy the same lands. The state is encouraging companies to establish socioeconomic partnership agreements with regional governments, municipalities and Indigenous Peoples' enterprises. These arrangements are to foster equitable benefit sharing between companies and Indigenous communities. However, energy companies use these agreements mostly to compensate for environmental damages, not to offer additional benefits. These neo-colonial arrangements are obviously far from being equitable, and the access to compensation is unequally distributed (Tysiachniouk and Petrov, 2018; Tysiachniouk et al., 2020). Importantly, these arrangements also foster dependency of Indigenous Peoples on energy projects.

8.2 Geography of infrastructural colonialism across different IPs and okrugs

The legislation in Khanty-Mansiysk Autonomous Okrug, in which large oil companies such as Surgutneftegas and Lukoil operate, is considered more favorable for Indigenous Peoples than in other regions because TTNUs can be designated there. However, despite this advanced regulatory framework, Indigenous Peoples cannot veto oil development on TTNUs and are poorly compensated for damages to their land. Severe conflicts occur, for example, between the Forest Nenets and Surgutneftegas company in the Numto Nature Park where the company eventually co-opted Indigenous leaders to resolve the conflict in its favor (Tysiachniouk and Olimpieva, 2019; Pristupa et al., 2018).

In neighboring regions, e.g., Nenets Autonomous Okrug, Komi Republic and Yamal-Nenets Autonomous Okrug, relationships between energy companies and Indigenous Peoples vary, but here, too, conflicts are indicative of fundamental tensions. In all three regions Indigenous Peoples are struggling with degradation of land and water due to oil leaks which contaminate the land, the loss of pasture land to oil and gas infrastructure, and the fragmentation of territory used for reindeer herding, hunting and gathering (Pierk and Tysiachniouk, 2016; Tysiachniouk et al., 2018).

Prior to the invasion into Ukraine on 24 February 2022 some Indigenous groups and associations as well as other non-governmental organizations (NGOs) made an effort to challenge operations of oil and gas companies by pressuring global financial lending institutions and UN commissions. The examples of the Sakhalin 1 and 2 projects are a case in point.

On Sakhalin Island, two large consortiums operate: Sakhalin 1, with major investor Exxon Mobil, and Sakhalin 2, with multiple investors including the European Bank of Reconstruction and Development (EBRD). Out of a total population of approximately half a million people, Sakhalin is home to around 3000 people of Indigenous descent, e.g., Nivkhi, Uilta, Nanai, Evenk, Chukchi and Itelmens. Indigenous groups were severely affected during the construction phase of oil and gas infrastructure, concerning the destruction of salmon rivers and sacred sites. In 2005 they blocked the road to consortium construction sites and were supported by NGOs who organized a divestment Green Wave campaign in 2005–2006 against both megaprojects Sakhalin 1 and 2. In particular, the NGO Sakhalin Environment Watch together with 146 environmental NGOs from 22 countries, 80 Russian NGOs and the NGO Bank Watch organized a campaign against the EBRD and other investment banks invested in the Sakhalin 2 project. EBRD finally stopped its loans to the Sakhalin 2 project, naming a consortium ownership change as the reason, but environmental NGOs believed that the defunding campaign was a success story (Tysiachniouk et al., 2017). As a result of the Green Wave campaign both Sakhalin 1 and Sakhalin 2 projects improved environmental standards and used the World Bank and the International Finance Corporation (IFC) standards in their policies towards Indigenous Peoples.

The Sakhalin 2 project continued to operate after the Russian invasion of Ukraine. However, Royal Dutch Shell, which was part of the consortium, left Russia. According to Putin's decree in June 2022 the Sakhalin Energy Investment Company Ltd, registered in the Bermudas, ceased to exist and the Russian company Sakhalin Energy became an operator registered in Sakhalin. Japanese companies remained part of the consortium, while Gazprom continued to be a major shareholder with 50 + 1 shares. Sakhalin Energy continued to fulfill the fourth Sakhalin Indigenous Minorities Development plan in full despite the war. Global standards adopted by the Sakhalin 2 project turned out to be persistent and were not

affected by the war or by the Russian isolation in the international arena.

The Sakhalin 1 project had a different life history. It was operated by the Exxon Neftegas Limited (ENL) company, and all investments were coming from the Exxon Mobil US headquarters. Despite the Sakhalin 1 project being much less affected by the Green Wave campaign, it took multiple measures for the improvement of its interactions with Indigenous communities. It also concluded a tripartite partnership agreement with the state and Indigenous Peoples and was supporting Indigenous organizations affected by oil development districts, via its grant program (Tysiachniouk et al., 2022). After 24 February 2022 Exxon Mobil left Russia which caused a crisis in the Sakhalin 1 energy project. A new operator, Sakhalin-1 LLC, was registered in October 2022, and there is no evidence that support to affected Indigenous communities is maintained.

During the current geopolitical situation, Indigenous Peoples' and NGO strategies of pressuring the state, oil and gas companies, and investors are not working any longer. Unlike in the past, the European Bank of Reconstruction and Development (EBRD) and other financial institutions are not investing in Russian infrastructure, and there are no actors within Russia willing to apply to the UN, as any complaints can be severely punished. What is more, it is important to note that Russian mobilization of men to the war significantly affected both recognized (Udege, Uilta, Nenets, Evenk peoples) and unrecognized Indigenous Peoples (such as Buryat, Komi and Sakha). The war against Ukraine has only intensified the effects of ongoing internal colonization of Indigenous Peoples by the state, while it also weaponized their marginalization within Russian society for the purposes of waging war against another nation-state.

9 Response – Stefan Bouzarovski

In response to my initial contribution to this forum, the editors have thoughtfully curated seven essays from an impressive list of authors, offering rich theoretical development and empirical nuance. Collectively, the papers provide conceptual insight on topics that have rarely conversed with each other – on the problematic Swiss positionality in relation to the Russian invasion of Ukraine (Bichsel), the drivers and enactments of energopolitical violence (Boyer), the articulations of everyday geopolitics in Central and Eastern Europe (Ferenčuhová), the representational grain of Russian neo-colonialism (Gentile), the geographical imaginaries that underpin Russian imperialist practices (Mykhnenko), the materialities and contestations of colonial geopolitics (Oguz), and Russia's infrastructural hegemony towards Indigenous Peoples (Tysiachniouk). While research on energy colonialism in the “Global East” (Müller, 2020) – and beyond – is relatively fragmented and emergent, the seven interventions col-

lectively offer a knowledge corpus that convincingly delineates key agendas and challenges.

If there is a common thread across the entire forum, it is the need to attend to the geographically multi-scalar and often internally contradictory performances of imperial domination and to approach energy infrastructure beyond the conventional register of large-scale technological formations. As recent developments in and around Ukraine have demonstrated, whatever the desires of those who control transnational energy flows, the ultimate outcome of energy-related conflicts is closely contingent on how infrastructures are lived, experienced and politically mediated. In a broader sense, this calls upon the necessity to trace both the global political-economic connections that are disrupted and created by the severing of established energy circulations and the opportunities for new infrastructural solidarities among marginalized and oppressed groups across the world.

Data availability. No data sets were used in this article.

Author contributions. SB was responsible for Sects. 1 and 9, CB for Sect. 2, DB for Sect. 3, SF for Sect. 4, MG for Sect. 5, VM for Sect. 6, ZO for Sect. 7, and MT for Sect. 8.

Competing interests. The contact author has declared that none of the authors has any competing interests.

Disclaimer. Publisher's note: Copernicus Publications remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Review statement. This collection was edited by Jevgeniy Bluwstein and Alexander Vorbrugg.

Acknowledgements. Stefan Bouzarovski is grateful to Mat Paterson (Sustainable Consumption Institute, University of Manchester) and the “Contemporary crises and net zero transitions: Ukraine, COVID, and energy” project, funded by the University of Manchester Research Institute. Stefan Bouzarovski also gratefully acknowledges support from a Global Challenges Research Fund and Newton Fund block grant by UK Research and Innovation to the University of Manchester (reference EP/X527932/1).

Financial support. This research has been supported by the Global Challenges Research Fund and Newton Fund block grant by UKRI to the University of Manchester (reference EP/X527932/1).

References

- Aebi, M.: Jetzt droht der Öfeli-GAU, Tagesanzeiger, <https://www.tagesanzeiger.ch/jetzt-droht-der-oefeli-gau-134100246765> (last access: 2 February 2023), 2022.
- Anand, N.: Leaky States: Water Audits, Ignorance, and the Politics of Infrastructure, *Public Culture*, 27, 305–330, <https://doi.org/10.1215/08992363-2841880>, 2015.
- Apostolopoulou, E.: A novel geographical research agenda on Silk Road urbanisation, *Geogr. J.*, 187, 386–393, <https://doi.org/10.1111/geoj.12412>, 2021.
- Balmaceda, M., Högselius, P., Johnson, C., Pleines, H., Rogers, D., and Tynkkynen, V.-P.: Energy materiality: A conceptual review of multi-disciplinary approaches, *Energ. Res. Social Sci.*, 56, 101220, <https://doi.org/10.1016/j.erss.2019.101220>, 2019.
- Balmer, D.: In der Schweiz bröckelt die Unterstützung für die Ukraine, *Der Bund*, <https://www.derbund.ch/in-der-schweiz-broeckelt-die-unterstuetzung-fuer-die-ukraine-338351932267> (last access: 10 February 2023), 2022.
- Bartels, D. and Bartels, A.: Are Siberian Native People Part of a “Fourth World”?, *Dialect. Anthropol.*, 12, 245–252, 1987.
- Bell, S., Judson, E., Bulkeley, H., Powells, G., Capova, K. A., and Lynch, D.: Sociality and electricity in the United Kingdom: The influence of household dynamics on everyday consumption, *Energ. Res. Social Sci.*, 9, 98–106, <https://doi.org/10.1016/j.erss.2015.08.027>, 2015.
- Bertrand, N., Marquardt, A. and Lillis, K. B.: The US and its allies want Ukraine to change its battlefield tactics in the spring, *CNN*, <https://edition.cnn.com/2023/01/24/politics/ukraine-shift-tactics-bakhmut/index.html> (last access: 20 March 2023), 2023.
- Bouzarovski, S.: East-Central Europe’s changing energy landscapes: a place for geography, *Area*, 41, 452–463, <https://doi.org/10.1111/j.1475-4762.2009.00885.x>, 2009.
- Bouzarovski, S.: Post-Socialist Energy Reforms in Critical Perspective: Entangled Boundaries, Scales and Trajectories of Change, *Europ. Urban Reg. Stud.*, 17, 167–182, 2010.
- Bouzarovski, S. and Bassin, M.: Energy and Identity: Imagining Russia as a Hydrocarbon Superpower, *Ann. Assoc. Am. Geogr.*, 101, 783–794, <https://doi.org/10.1080/00045608.2011.567942>, 2011.
- Bouzarovski, S., Bradshaw, M., and Wochnik, A.: Making territory through infrastructure: The governance of natural gas transit in Europe, *Geoforum*, 64, 217–228, <https://doi.org/10.1016/j.geoforum.2015.06.022>, 2015.
- Bouzarovski, S., Sýkora, L., and Matoušek, R.: Locked-in post-socialism: rolling path dependencies in Liberec’s district heating system, *Euras. Geogr. Econ.* 57, 624–642, <https://doi.org/10.1080/15387216.2016.1250224>, 2016.
- Boyer, D.: *Energopower: An Introduction*, *Anthropol. Quart.*, 87, 309–333, <https://doi.org/10.1353/anq.2014.0020>, 2014.
- Boyer, D.: *No More Fossils*, University of Minnesota Press, Minneapolis, 2023.
- Browne, A., Petrova, S., and Brockett, B.: Energy-water nexus vulnerabilities in China: Infrastructures, policies and practices, in: *Energy poverty and vulnerability: A global perspective*, Routledge, 80–95, ISBN 13 978-0367249441, 2017.
- Buck-Morss, S.: *Dreamworld and Catastrophe*, MIT Press, Cambridge, MA, ISBN 9780262523318, 2000.
- Coalson, R.: Kyiv Turns To ‘Unconventional’ Natural Gas To Wean Itself From Gazprom, *RadioFreeEuropeRadioLiberty*, <https://www.rferl.org/a/ukraine-fracking-shale-gas-russia/24881720.html> (last access: 30 May 2023), 2013.
- Cole, B.: Russian TV Says Ukraine No Longer Exists, Compares War to ‘Deworming a Cat’, 19 July, *Newsweek*, <https://www.newsweek.com/russian-tv-ukraine-no-longer-exists-simonyan-russia-1> (last access: 30 May 2023), 2022.
- Community Power: Poland, <https://www.communitypower.eu/en/poland.html> (last access: 30 May 2023), 2022.
- CSO – Czech Statistical Office: *Spotřeba paliv a energií v domácnostech Energo – 2021: Rozdělení domácností podle paliv a energií používaných na vytápění*, <https://www.czso.cz/csu/czso/rozdeleni-domacnosti-podle-paliv-a-energi-pouzivanych-na> (last access: 30 May 2023), 2022.
- Curley, A.: Resources is just another word for colonialism, in: *The Routledge Handbook of Critical Resource Geography*, Routledge, ISBN 9781138358805, 2021.
- Davis, D. K. and Robbins, P.: Ecologies of the colonial present: Pathological forestry from the *taux de boisement* to civilized plantations, *Environ. Plan. E*, 1, 447–469, <https://doi.org/10.1177/2514848618812029>, 2018.
- Dawson, A. and Gómez-Barris, M.: *Energy States: Unequal Burdens, Climate Transitions, and Postextractive Futures*, *Social Text*, 40, 39–67, 2022.
- Dawson, A., Armiero, M., Turhan, E., and Biasillo, R.: *Urban Climate Insurgency: An Introduction*, *Social Text*, 40, 1–20, 2022.
- de Mesquita, B. B. and Siverson, R. M.: War and the survival of political leaders: A comparative study of regime types and political accountability, *Am. Polit. Sci. Rev.*, 89, 841–855, <https://doi.org/10.2307/2082512>, 1995.
- Dittmer, J. and Gray, N.: *Popular Geopolitics 2.0: Towards New Methodologies of the Everyday: Popular geopolitics 2.0*, *Geog. Compass*, 4, 1664–1677, <https://doi.org/10.1111/j.1749-8198.2010.00399.x>, 2010.
- Dixon, D. P.: *Drift in an Anthropocene: On the work of terrain*, *Dialog. Hum. Geogr.*, 11, 203–207, 2021.
- Doherty, J.: Maintenance Space: The Political Authority of Garbage in Kampala, Uganda, *Curr. Anthropol.*, 60, 24–46, <https://doi.org/10.1086/701514>, 2019.
- Driver, F.: *Geography Militant: Cultures of Exploration and Empire*, Blackwell Publishers, ISBN 978-0-631-20111-3, 2000.
- Dugin, A. (Ed.): *Friedrich Ratzel: Sinnerfüllte Räume*, in: *Dugin’s Directive*, YouTube, <https://www.youtube.com/watch?v=EFyLgXW3W20> (last access: 30 May 2023), 2016.
- Elden, S.: Secure the volume: Vertical geopolitics and the depth of power, *Polit. Geogr.*, 34, 35–51, <https://doi.org/10.1016/j.polgeo.2012.12.009>, 2013.
- Elyachar, J.: *From Versailles to the War on Terror*, *Public Books*, <https://www.publicbooks.org/from-versailles-to-the-war-on-terror/> (last access: 30 May 2023), 2021.
- ERO – Energy Regulation Office: *Loňská spotřeba plynu byla nejnižší za posledních 8 let, meziročně se snížila o pětinu*, <https://www.ero.cz/lonska-spotreba-plynu-byla-nejnizsi-za-poslednich-8-let> (last access: 30 May 2023), 2023.
- Eriksen, T. H.: *Generation climate change*, *Social Anthropol.*, 29, 219–221, <https://doi.org/10.1111/1469-8676.12996>, 2021.

- Escudier, M. and Atkins, T. (Eds.): *Joule's experiment*, in: *A Dictionary of Mechanical Engineering*, Oxford University Press, <https://doi.org/10.1093/acref/9780198832102.001.0001>, 2019.
- Etkind, A.: *Internal Colonization: Russia's Imperial Experience*, John Wiley & Sons, ISBN 978-0-745-65129-3, 2013.
- Extinction Rebellion: 3°C pro Ukrajinu, <https://www.extinctionrebellion.cz/3c-pro-ukrajinu/> (last access: 30 May 2023), 2022.
- Felgenhauer, P.: Stil' "military", class "premium", "Vostok-2018": k masshtabnoi voine s Zapadom strana gotova ne khuzhe, chem v 1981-m, *Novaya gazeta*, <https://novyagazeta.ru/articles/2018/09/15/77838-stil-militari-klass-premium> (last access: 30 May 2023), 2018.
- Ferenčuhová, S.: Inconspicuous adaptations to climate change in everyday life: Sustainable household responses to drought and heat in Czech cities, *J. Consum. Cult.*, 22, 729–746, 2022.
- Ferry, E. E. and Limbert, M. E.: *Timely assets: the politics of resources and their temporalities*, School for Advanced Research Press, ISBN 1934691062, 2008.
- Focus Agency: Válka na Ukrajině optikou české veřejnosti, <https://www.focus-agency.cz/z-nasich-vyzkumu/valka-na-ukrajine-optikou-ceske-verejnosti> (last access: 30 May 2023), 2022.
- Focus Agency: Finanční situace českých domácností a změny ve spotřebitelském chování v době vysokých cen, 21 February, <https://www.focus-agency.cz/aktuality/hospodareni-ceskych-domacnosti-v-dobe-inflace> (last access: 30 May 2023), 2023.
- George, C.: *Singapore: the air-conditioned nation: essays on the politics of comfort and control, 1990–2000*, Landmark Books, Singapore, 223 pp., ISBN 10 981306546X, 2000.
- Gregory, D.: *The Colonial Present: Afghanistan, Palestine, and Iraq*, Blackwell Pub., Malden, MA, 367 pp., ISBN 978-1-577-18089-0, 2004.
- Hrábek, L.: Co můžu udělat, aby se snížila spotřeba ruského plynu a ropy?, <https://www.greenpeace.org/czech/clanek/16331/co-muzu-udelat-aby-se-snizila-spotreba-ruskeho-plynu-a-ropy/> (last access: 22 August 2023), 2022.
- Högselius, P.: *Red gas: Russia and the origins of European energy dependence*, in: 1st Edn., Palgrave Macmillan, New York, 279 pp., ISBN 13 978-1137293718, <https://doi.org/10.1057/9781137286154>, 2013.
- Janouš, E.: Ministerstvo průmyslu proti Putinovi. Vydalo manuál, jak ušetřit na energiích, *Deník.cz*, <https://www.denik.cz/energie/urednici-ministerstvo-energie-uspora-putin-20220810.html> (last access: 22 August 2023), 2022.
- Jehlička, P.: The mystery of the missing food waste, *CESCAME*, <https://cescame.soc.cas.cz/research-outcomes/petr-jehlicka-the-mystery-of-the-missing-food-waste> (last access: 22 August 2023), 2022.
- Jehlička, P. and Daněk, P.: Rendering the Actually Existing Sharing Economy Visible: Home-Grown Food and the Pleasure of Sharing: Home-grown food and the pleasure of sharing, *Sociolog. Rural.*, 57, 274–296, <https://doi.org/10.1111/soru.12160>, 2017.
- Jelley, N.: *A Dictionary of Energy Science*, Oxford University Press, Oxford, <https://doi.org/10.1093/acref/9780191826276.001.0001>, eISBN 9780191826276, 2017.
- Johnson, C.: 2017. *Mobile Energy and Obdurate Infrastructure: Distant Carbon and the Making of Modern Europe*, in: *The Routledge Research Companion to Energy Geographies*, Routledge, 95–105, ISBN 13 978-0367660055, 2017.
- Johnston, R. J. and Sidaway, J. D.: *Geography and geographers: Anglo-American human geography since 1945*, 7th Edn., Routledge, London, New York, 520 pp., ISBN 9780340985106, 2016.
- Jones, R. and Phillips, R.: *Unsettling Geographical Horizons: Exploring Premodern and Non-European Imperialism*, *Ann. Assoc. Am. Geogr.*, 95, 141–161, 2005.
- Kassymbekova, B. and Marat, E.: *Time to Question Russia's Imperial Innocence*, PONARS Eurasia Policy Memo, <https://www.ponarseurasia.org/time-to-question-russias-imperial-innocence/> (last access: 30 May 2023), 2022.
- Kearns, G.: *Geopolitics and empire: the legacy of Halford Mackinder*, Oxford University Press, Oxford, New York, <https://doi.org/10.1093/acprof:oso/9780199230112.001.0001>, 2009.
- Kelly, L.: *Russia can turn US to radioactive ash – Kremlin-backed journalist*, Reuters, 16 March, <https://www.reuters.com/article/ukraine-crisis-russia-kiselyov-idUSL6N0MD0P920140316> (last access: 30 March 2023), 2014.
- KHPG: *Memorial volunteers: Patterns of Resistance are changing. A Digest of Protests in Russia*, Kharkiv Human Rights Protection Group, 3 July, <https://khpg.org/en/1608810823> (last access: 30 May 2023), 2022.
- Klinke, I.: *Cryptic concrete: a subterranean journey into Cold War Germany*, John Wiley & Sons Ltd, Hoboken, NJ, ISBN 978-1-119-26111-7, 2018.
- Kneas, D.: *Emergence and Aftermath: The (Un)Becoming of Resources and Identities in Northwestern Ecuador*, *Am. Anthropol.*, 120, 752–764, <https://doi.org/10.1111/aman.13150>, 2018.
- Koopman, S., Dalby, S., Megoran, N., Sharp, J., Kearns, G., Squire, R., Jeffrey, A., Squire, V., and Toal, G.: *Critical Geopolitics/critical geopolitics 25 years on*, *Polit. Geogr.*, 90, 102421, <https://doi.org/10.1016/j.polgeo.2021.102421>, 2021.
- Korzhevskii, A. S. (Major-General, Ed.): *Prognoziruemye vyzovy i ugrozy natsional'noi bezopasnosti Rossiiskoi Federatsii i napravleniia ikh neutralizatsii*, Military Academy of the General Staff of the Armed Forces of Russian Federation, Russian State Humanitarian University, ISBN 978-5-7281-3057-4, 2021.
- Koudelová, T.: *Méně tepla doma i v kanceláři může pomoci v boji proti Rusku i změně klimatu*, *Ekonews.cz*, 30 March, <https://www.ekonews.cz/mene-tepla-doma-i-v-kancelari-muze-pomoci-v-boji-proti> (last access: 30 March 2023), 2022.
- Kuus, M.: *Regulatory power and region-making in the Arctic: China and the European Union*, *Eur. Urban Reg. Stud.*, 27, 321–324, <https://doi.org/10.1177/0969776420925539>, 2020.
- Kuzemko, C., Blondeel, M., Dupont, C., and Brisbois, M. C.: *Russia's war on Ukraine, European energy policy responses & implications for sustainable transformations*, *Energy. Res. Social Sci.*, 93, 102842, <https://doi.org/10.1016/j.erss.2022.102842>, 2022.
- Last, A.: *Fruit of the cyclone: Undoing geopolitics through geopoetics*, *Geoforum*, 64, 56–64, <https://doi.org/10.1016/j.geoforum.2015.05.019>, 2015.

- Lawson, A.: Russian oil revenues fall in November despite production boost, *The Guardian*, <https://www.theguardian.com/business/2022/dec/14/Russian-oil-revenues-fall-in-november-despite-production-boost> (last access: 30 May 2023), 2022
- Linde, F.: State Civilisation: The Statist Core of Vladimir Putin's Civilisational Discourse and Its Implications for Russian Foreign Policy, *Polit. Centr. Europe*, 12, 21–35, <https://doi.org/10.1515/pce-2016-0002>, 2016.
- Liubimau, S.: Post-Soviet 'nuclear' towns as multi-scalar infrastructures: Relating sovereignty and urbanity through the perspective of Visaginas, in: *Post-Socialist Urban Infrastructures (OPEN ACCESS)*, Routledge, ISBN 13 978-0815392651, 2019.
- Livingstone, D. N.: *The geographical tradition: episodes in the history of a contested enterprise*, Blackwell, Oxford, UK, Cambridge, USA, 434 pp., ISBN 978-0-631-18586-4, 1993.
- Madsen, L. V.: The Comfortable Home and Energy Consumption, *Hous. Theor. Soc.*, 35, 329–352, <https://doi.org/10.1080/14036096.2017.1348390>, 2018.
- Matějka, R and Z Štech: Spotřeba paliv a energií v domácnostech, Czech Statistical Office, October, https://www.czso.cz/documents/10180/197266542/csu_tk_energo_prezentace.pdf/4bedcb0b-e6f7-40fd-9c9c-709b8dc1c9c6?version=1.0 (last access: 30 May 2023), 2022.
- McEvily, P.: Energiespar-Kampagne ist fake – eine Spurensuche, SRF, <https://www.srf.ch/news/schweiz/auf-ruf-zur-denunziation-energiespar-kampagne-ist-fake-eine-spurensuche> (last access: 30 May 2023), 16 September 2022.
- McGlynn, J.: Why Russia Markets Itself as an Anti-Colonial Power to Africans, *Foreign Policy*, 8 February, <https://foreignpolicy.com/2023/02/08/russia-ukraine-colonialism-diplomacy-africa/> (last access: 30 May 2023), 8 February 2023.
- Melchior, S.: Russia's Multi-Million Euro Nuclear Exports Untouched by EU Sanctions, *Investigate Europe*, October, <https://www.investigate-europe.eu/en/2022/russias-multi-million-euro-nuclear-exports-untouched-by-eu> (last access: 30 May 2023), 2022.
- Mišík, M. and Prachárová, V.: Before 'Independence' Arrived: Interdependence in Energy Relations between Lithuania and Russia, *Geopolitics*, 21, 579–604, <https://doi.org/10.1080/14650045.2015.1113402>, 2016.
- Mitchell, T.: Carbon Democracy, *Econ. Soc.*, 38, 399–432, 2009.
- Moussu, N.: 10 Measures the EU Should Adopt to Reduce Russian Gas Dependency, *March*, <https://www.euractiv.com/section/energy-environment/news/10-measures-the-eu-should-adopt-to-reduce-russian-gas> (last access: 30 May 2023), 2022.
- Müller, M.: In Search of the Global East: Thinking between North and South, *Geopolitics*, 25, 734–755, <https://doi.org/10.1080/14650045.2018.1477757>, 2020.
- Mykhnenko, V.: Causes and Consequences of the War in Eastern Ukraine: An Economic Geography Perspective, *Europe-Asia Stud.*, 72, 528–560, <https://doi.org/10.1080/09668136.2019.1684447>, 2020.
- Mykhnenko, V., Delahaye, E., and Mehdi, N.: Understanding forced internal displacement in Ukraine: insights and lessons for today's crises, *Oxford Rev. Econ. Policy*, 38, 699–716, <https://doi.org/10.1093/oxrep/grac020>, 2022.
- Nucho, J. R.: *How Versailles Still Haunts the World*, Public Books, <https://www.publicbooks.org/how-versailles-still-haunts-the-world/> (last access: 30 May 2023), 2021.
- Oguz, Z.: Denaturalizing Gas and War: On Energy Humanities and the Cyprus Gas Conflict, *Energy Humanities*, <https://www.energyhumanities.ca/news/denaturalizing-gas-and-war-on-energy-humanities-and-the> (last access: 30 May 2023), 2022.
- Oguz, Z.: Managing oil theft: socio-material relations, debt, and disruption in Southeastern Turkey, *J. Cult. Econ.*, 1–15, <https://doi.org/10.1080/17530350.2022.2144412>, 2023a.
- Oguz, Z.: The Speculative Underground: Petro-Politics, Territorial Imaginaries, and the Indeterminate Earth, *Cult. Anthropol.*, 38, 411–437, 2023b.
- Panova, O. and Pryvalov, A.: Key Geological Characteristics And Major Environmental Challenges Of The Donbas From Standpoint Of Indicating Goals For Its Future Recovery, *MGeo*, 51–60, [https://doi.org/10.31474/2073-9575-2019-1\(21\)-2\(22\)-51-60](https://doi.org/10.31474/2073-9575-2019-1(21)-2(22)-51-60), 2019.
- Park, C. and Allaby, M.: Thermodynamics, Second Law of, in: *A Dictionary of Environment and Conservation*, 3rd Edn., Oxford University Press, ISBN 13 9780199641666, 2017.
- Petrova, S.: Illuminating austerity: Lighting poverty as an agent and signifier of the Greek crisis, *Eur. Urban Reg. Stud.*, 25, 360–372, <https://doi.org/10.1177/0969776417720250>, 2018.
- Pierk, S. and Tysiachniouk, M.: Structures of mobilization and resistance: Confronting the oil and gas industries in Russia, *Extract. Indust. Soc.*, 3, 997–1009, <https://doi.org/10.1016/j.exis.2016.07.004>, 2016.
- Pristupa, A. O., Tysiachniouk, M., Mol, A. P. J., Leemans, R., Minayeva, T., and Markina, A.: Can zoning resolve nature use conflicts? The case of the Numto Nature Park in the Russian Arctic, *J. Environ. Plan. Manage.*, 61, 1674–1700, <https://doi.org/10.1080/09640568.2017.1370365>, 2018.
- Putin, V.: On the Historical Unity of Russians and Ukrainians, Presidential Executive Office, <http://en.kremlin.ru/events/president/news/66181> (last access: 12 July 2021), 2021a.
- Putin, V.: On the Historical Unity of Russians and Ukrainians, <http://en.kremlin.ru/events/president/news/66181> (last access: 12 July 2021), 2021b.
- Putin, V.: Modern Ukraine Entirely Created by Russia, in: *The Print*, <https://theprint.in/world/modern-ukraine-entirely-created-by-russia-read-full-text-of/> (last access: 30 May 2023), 2022.
- Putin, V.: Poslanie Prezidenta Federal'nomu Sobraniyu [Presidential Address to the Federal Assembly], <http://kremlin.ru/events/president/news/70565> (last access: 30 May 2023), ISBN 13 9780199641666, 2023.
- Reichen, P.: Russische Journalistin sieht die Schweiz am Rand einer Hungerkrise, *Tagesanzeiger*, <https://www.tagesanzeiger.ch/russische-journalistin-sieht-die-schweiz-am-rand-einer-hungerkrise-788607240561> (last access: 30 May 2023), 2022.
- Reuters: Ukraine pick Shell, Chevron to develop shale gas fields, 11 May, <https://www.reuters.com/article/shell-chevron-ukraine-idUSL5E8GBAE020120511> (last access: 30 May 2023), 11 May 2012.
- Reuters: Russia claims progress in Bakhmut, Ukraine says fighting fierce, 25 January,

- <https://www.reuters.com/world/europe/russian-installed-donetsk-chief-says-wagner-units-making> (last access: 30 May 2023), 2023.
- RGS: Study of the Crimea Coastal Zone, The Russian Geographical Society, <https://www.rgo.ru/en/article/study-crimea-coastal-zone> (last access: 20 February 2023), 21 August 2014, 2014a.
- RGS: The Unknown Crimea, The Russian Geographical Society, <https://www.rgo.ru/en/article/unknown-crimea> (last access: 20 February 2023), 16 December 2014, 2014b.
- RGS: Being a Discoverer, The Russian Geographical Society, <https://www.rgo.ru/en/article/being-discoverer> (last access: 20 February 2023), 23 September 2014, 2014c.
- RIA Novosti: Посол России в США заявил, что Москва и Вашингтон больше не партнеры [The ambassador of Russia to the USA declared that Moscow and Washington are no longer partners], 18 April, <https://ria.ru/20220418/posol-1784084932.html> (last access: 30 May 2023), 2022.
- Richardson, T. and Weszkalnys, G.: INTRODUCTION: Resource Materialities, *Anthropol. Quart.*, 87, 5–30, 2014.
- Rogers, D.: The Depths of Russia: Oil, Power, and Culture after Socialism, in: 1st Edn., Cornell University Press, 2015.
- Roth, A.: Russian TV presenter accused of inciting genocide in Ukraine, *The Guardian*, <https://www.theguardian.com/world/2022/oct/24/russian-tv-presenter-anton-krasovskiy-accused-of-inciting> (last access: 30 May 2023), 2022.
- Salamanca, O. J.: Assembling the Fabric of Life: When Settler Colonialism Becomes Development, *J. Palestine Stud.*, 45, 64–80, <https://doi.org/10.1525/jps.2016.45.4.64>, 2016.
- Schmidt, J. J. Geography and ethics I: Placing injustice in the Anthropocene, *Prog. Hum. Geogr.*, 46, 935–1128, 2022.
- Sharma, R.: India Now Buying 33 Times More Russian Oil Than a Year Earlier, *Bloomberg*, 16 January, <https://www.bloomberg.com/news/articles/2023-01-16/india-now-buying-33-times-more-russian-oil-than-a-year-earlier?leadSource=verify> wall (last access: 30 May 2023), 2023.
- Shove, E. and Warde, A.: Inconspicuous consumption: the sociology of consumption, lifestyles and the environment, in: *Sociological theory and the environment: classical foundations, contemporary insights*, edited by: Dunlap, R. E., Buttel, F. H., Dickens, P., and Gijswijt, A., Rowman & Littlefield, Plymouth, 230–251, <https://doi.org/10.1177/1086026604270650>, 2002.
- Simonov, K. V.: *Energeticheskaja sverkhderzhava*, Algoritm, ISBN 5-9265-0269-1, 2006.
- Simonov, K. V.: *Global'naja energeticheskaja voina: tainy sovremennoi politiki*, Algoritm, Moscow, ISBN 978-5-9265-0496-2, 2007.
- Šiupšinskas, M. and Lankots, E.: Collectivist Ideals and Soviet Consumer Spaces: Mikrorayon Commercial Centres in Vilnius, Lithuania and Tallinn, Estonia, in: *Housing Estates in the Baltic Countries: The Legacy of Central Planning in Estonia, Latvia and Lithuania*, edited by: Hess, D. B. and Tammaru, T., Springer International Publishing, Cham, 301–320, https://doi.org/10.1007/978-3-030-23392-1_14, 2019.
- Smith, J. and Jehlička, P.: Quiet sustainability: Fertile lessons from Europe's productive gardeners, *J. Rural Stud.*, 32, 148–157, <https://doi.org/10.1016/j.jrurstud.2013.05.002>, 2013.
- Star, S. L.: The Ethnography of Infrastructure, *Am. Behav. Scientist.*, 43, 377–391, 1999.
- Steinberg, P. and Peters, K.: Wet Ontologies, Fluid Spaces: Giving Depth to Volume through Oceanic Thinking, *Environ. Plan. D.*, 33, 247–264, <https://doi.org/10.1068/d14148p>, 2015.
- Strengers, Y., Nicholls, L., and Maller, C.: Curious energy consumers: Humans and nonhumans in assemblages of household practice, *J. Consum. Cult.*, 16, 761–780, <https://doi.org/10.1177/1469540514536194>, 2016.
- Sultana, F.: The unbearable heaviness of climate coloniality, *Polit. Geogr.*, 99, 102638, <https://doi.org/10.1016/j.polgeo.2022.102638>, 2022.
- Surkov, V.: Kuda delsia kaos? *Raspakovka stabilnosti*, Aktual'nye komentarii, <https://actualcomment.ru/kuda-delsya-kaos-raspakovka-stabilnosti-2111201336.html> (last access: 30 May 2023), 2021.
- Surkov, V.: Tumannoje budushchee pokhabnogo mira, Aktual'nye komentarii, <https://actualcomment.ru/tumannoje-budushchee-pokhabnogo-mira-2202150925.html> (last access: 30 May 2023), 2022.
- Suslov, M.: The Production of 'Novorossiya': A Territorial Brand in Public Debates, *Europe-Asia Stud.*, 69, 202–221, <https://doi.org/10.1080/09668136.2017.1285009>, 2017.
- Suslov, M.: "Russian World" Concept: Post-Soviet Geopolitical Ideology and the Logic of "Spheres of Influence", *Geopolitics*, 23, 330–353, <https://doi.org/10.1080/14650045.2017.1407921>, 2018.
- Suslov, M. D.: "Crimea Is Ours!" Russian popular geopolitics in the new media age, *Euras. Geogr. Econ.*, 55, 588–609, <https://doi.org/10.1080/15387216.2015.1038574>, 2014.
- Szeman, I. and Boyer, D. (Eds.): *Energy Humanities: An Anthology*, JHU Press, ISBN 978-1421421896, 2017.
- Trimikliniotis, N. and Bozkurt, U.: Introduction: Beyond a Divided Cyprus, a Society in a State of Transformation, in: *Beyond a Divided Cyprus: A State and Society in Transformation*, edited by: Trimikliniotis, N. and Bozkurt, U., Palgrave Macmillan US, New York, 1–21, https://doi.org/10.1057/9781137100801_1, 2012.
- Tully, A.: Shell has been driven out of Ukraine, <https://www.businessinsider.com/shell-has-been-driven-out-of-ukraine-2015-6> (last access: 30 May 2023), 2015.
- Tysiachniouk, M. and Olimpieva, I.: Caught between Traditional Ways of Life and Economic Development: Interactions between Indigenous Peoples and an Oil Company in Numto Nature Park, *Arct. Rev.*, 10, 56, <https://doi.org/10.23865/arctic.v10.1207>, 2019.
- Tysiachniouk, M., Henry, L. A., Lamers, M., and Van Tatenhove, J. P. M.: Oil and indigenous people in sub-Arctic Russia: Rethinking equity and governance in benefit sharing agreements, *Energ. Res. Social Sci.*, 37, 140–152, <https://doi.org/10.1016/j.erss.2017.09.004>, 2017.
- Tysiachniouk, M. S. and Petrov, A. N.: Benefit sharing in the Arctic energy sector: Perspectives on corporate policies and practices in Northern Russia and Alaska, *Energ. Res. Social Sci.*, 39, 29–34, <https://doi.org/10.1016/j.erss.2017.10.014>, 2018.
- Tysiachniouk, M., Henry, L. A., Lamers, M., and Van Tatenhove, J. P. M.: Oil Extraction and Benefit Sharing in an Illiberal Context: The Nenets and Komi-Izhemtsi Indigenous Peo-

- ples in the Russian Arctic, *Soc. Nat. Resour.*, 31, 556–579, <https://doi.org/10.1080/08941920.2017.1403666>, 2018.
- Tysiachniouk, M. S., Petrov, A. N., and Gassiy, V.: Towards Understanding Benefit Sharing between Extractive Industries and Indigenous/Local Communities in the Arctic, *Resources*, 9, 48, <https://doi.org/10.3390/resources9040048>, 2020.
- Tysiachniuk, M., Teitelbaum, S., Petrov, A. and Horowitz, L.: Private Authority on Regulating Markets: Power Dynamics Around Free Prior and Informed Consent (FPIC) in Forestry and Oil Industry in Russia, in: *The Ambivalence of Power in the Twenty-First-Century Economy*, edited by: Radaev, V. and Kotelnikova, Z., UCL Press, London, 188–216, ISBN 9781800082687, 2022.
- Umbach, F.: The energy dimensions of Russia's annexation of Crimea, *NATO Review*, <https://www.nato.int/docu/review/articles/2014/05/27/the-energy-dimensions-of-russias-annexation-of-crimea/index.html> (last access: 12 February 2023), 27 May 2014.
- Wei Zheng, H., Bouzarovski, S., Knuth, S., Panteli, M., Schindler, S., Ward, K., and Williams, J.: Interrogating China's Global Urban Presence, *Geopolitics*, 28, 310–332, <https://doi.org/10.1080/14650045.2021.1901084>, 2023.
- Wintour, P.: 'We were all wrong': how Germany got hooked on Russian energy, *The Guardian*, <https://www.theguardian.com/world/2022/jun/02/germany-dependence-russian-energy-gas-oil-nord-stream> (last access: 30 May 2023), 2022.
- Yablokov, I.: *Fortress Russia: conspiracy theories in post-Soviet Russia*, Polity, Cambridge, UK, Medford, MA, 232 pp., ISBN 978-1509522668, 2018.
- Zee, J. C.: *Continent in dust: experiments in a Chinese weather system*, University of California Press, Oakland, California, ISBN 9780520384095, 2022.