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# Politics of dissensus in geographies of architecture: Testing equality at Ed Roberts Campus, Berkeley

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**Abstract**. This paper evokes the writings of Jacques Rancière to propose a concept of politics for geographies of architecture that is attentive to the polemical conditions under which more equal ways of composing built environments emerge. Discussing Ed Roberts Campus, a building designed and operated by the disability community in Berkeley, California, it argues for a politics of architecture that does not entail conflicts over power or identity, but revolves around a testing of materials that alters the bodily circumstances that built form offers for collective inhabitation. Such testing sets in motion an uncertain process where a building undergoes constant destabilisation by new claimants who verify and expand its equality. The paper then counterpoises this disruptive politics to institutional practices in order to investigate how its fragile after- effects might be sustained.

## 1. Introduction

Engaging with Ed Roberts Campus, an 85,000 square foot building situated in Berkeley, California, this paper discusses architecture as a test site for equality. Apart from serving the local disability community through a dozen organisations that offer anything between art classes and legal advice, Ed Roberts Campus has, since opening in 2011, been widely lauded for its many inclusive features, from fountains doubling as acoustic way- finding devices for those with low vision to lift controls that can be activated by touching with a wheelchair or walking frame. The uniqueness of the campus, however, lies in the way it facilitates everyday explorations of equality by the occupants of the building. Bringing together people with the broadest range of capabilities, it is an environment where the materials of communal life, among them carpeting, climate control systems and lighting, are put through trials by diverse bodies, whose encounters trace novel patterns of inclusion and exclusion, similarity and difference. Such shifting configurations of people and built form suggest an alternative approach to egalitarian architecture and constitute the primary focus of this paper.

Over the following pages, Ed Roberts Campus will be investigated through the work of Jacques Rancière to illuminate its architecture as a setting for political action that fosters

equality among the bodies that pass through the building. For Rancière, politics does not denote a "compromise between interests" or a "common will," but elicits instances of "dissensus," a term that he employs to describe a destabilisation of the dominant affective and sensory conditions, which has the potential to open communities to new types of agency and association (Rancière, 2007, p. 103). Dissensus is based on a striving for equality, only here equality is understood less as a predefined goal than a continuous "fashioning and testing," whereby collectives seek new ways to "recognize the existence of a shared world through the creation of polemical sites where equality can be verified" (Tanke, 2011, p. 59). Always embedded, equality involves a recurrent process of reaffirmation and hence raises specific challenges for a building committed to accommodating diversity – ones that Ed Roberts Campus throws into sharp relief, as those partaking in the space, from people with chemical sensitivities to autistic persons, constantly rearrange it to expand the "fabric of … common experience" (Rancière, 2010a, p. 150).

Staging an encounter between Rancière and Ed Roberts Campus, this paper advances debates within and beyond geographies of architecture in two entwined ways. First, it posits an alternative notion of politics in response to recent work, where politics often serves as a shorthand for the power relations regarded as permeating the design and inhabitation of architecture. While the intention is to demonstrate that nothing in architecture is apolitical and thus untouched by inequalities and struggles to overcome them, this has led to a situation where everything seems political and, consequently, to a concept of politics that has lost some its distinctiveness (Tanke, 2011, p. 63). The paper therefore deploys the vocabulary of Rancière to indicate how an understanding of politics as dissensus could make geographers attentive to those transitory occasions when politics appears and disappears again, as well as how such an orientation might offer a way to retain the analytical capacity of the notion and broaden its scope to uncover novel egalitarian arrangements.

Second, transposing Rancière into the area of architecture prompts a reconsideration of the concept of equality in geographical research, where it has been largely overshadowed by discussions of inequality. Whenever the concept is defended or disputed, it is viewed in an abstract sense as entitlements guarded by institutions or as principles guiding collective action (see Gregory et al., 2011; Haylett, 2003). However, the question of " how equality is enacted in specific times and places" is subsumed into a critique of the inequalities considered as preventing a situation of equality from emerging (Davidson & Iveson, 2015, p. 556), which has resulted in a relatively distant and passive notion of equality, an " equality-to-come that will never come" (Rancière, 2010b, p. 5). The paper mobilises Rancière to

suggest an "active equality" (May, 2008, pp. 38–77) by delineating how people use architecture for testing everyday equalities in an attempt to improve their living conditions. It thus demonstrates that equality is a dynamic process that responds creatively to a shifting landscape of inequality by inventing ever-new ways of breaking its hold over the world.

This argument is elaborated across four sections. The first considers how the concepts of Rancière can refocus politics in geographies of architecture and the second outlines the study underlying the paper. A third, more substantial section explores Ed Roberts Campus as a site of dissensus, starting with an account of the disability activism of Ed Roberts and its influence on accessible design. After this, the section turns to examine the inhabitation of the building through the experiences of autistic persons, who both disrupt and reconfigure spaces to accommodate neuro-affective diversity. The discussion then extends into practices of architectural design, describing interventions by chemically sensitive people in the development process of the campus, which exposed construction materials as a source of harmful particles and directed attention to the molecularity of politics. Engaging with building maintenance, the section ends by asking whether institutional practices might enable manifestations of dissensus to evolve into an egalitarian community. The final section of the paper raises broader questions concerning politics in architecture and beyond.

## 2. Buildings and politics

Geographers have variously depicted the complex lifespan of buildings, from the actors, concepts and materials that shape their design (Imrie & Street, 2011; Kraftl, 2014; Lorne, 2017; Moran et al., 2016), through their inhabitation (Lees, 2001; Llewellyn, 2003; Rose et al., 2010) and adaptation over time (Edensor, 2011; Jenkins, 2002; Strebel, 2011; Vasudevan, 2011; Yaneva, 2017), to their eventual decay and destruction (Cairns & Jacobs, 2014). Common to this work is an effort to develop dynamic understandings of architecture that foreground its emergence and transformation in everyday practices. Built forms are seen as a "relational effect" whose "'thingness' is an achievement of a diverse network of associates and associations" such as "pipes and cables, managers and users, owners and investors" (Jacobs, 2006, p. 11) – all involved in "holding together" and "intervening in the fabric of a building" (Jacobs & Merriman, 2011, pp. 212–216).

Elaborating on the above contributions, Kraftl (2010, p. 331) argues that a relational approach also has to pay heed to "non-relations" in architecture, because underlying the seeming coherence of a building, there are multiple experiences, materialities and narratives

that may be in tension and resist the kind of " holding together" described in contemporary research. As Kraftl writes, " the idea of a building (or at least what happens to and within that building) may be characterized as much by disconnection and dissociation as a field of relations" (2010, p. 331). He draws primarily on the work of Tschumi (1996, pp. 19– 23) to demonstrate that such " disjunctions," which often manifest themselves in the discrepancy between architecture and its actual use, can destabilise spaces in a manner that generates novel ways of composing buildings. Tschumi, as Kraftl clarifies, " seeks to disrupt the relations that connect form and function, event and space: all those relations that allow a building to cohere" (2010, p. 343; original emphasis). Attending to disjunctions means recognizing that some architectural relations might not " weave together coherently," pointing us, through their incompatibilities, to the "radical contingency" that characterises buildings and keeps them open to change (Kraftl, 2010, pp. 343– 344).

Adding to arguments about the relationality of architecture and in particular to ones that give prominence to disjunctions in fostering new modes of designing and inhabiting buildings, this paper specifies an alternative concept of politics for geographies of architecture. As Rancière forms a touchstone for the ensuing discussion, it is worthwhile to begin by outlining key features of his thinking before exploring its implications for research into built environments and recent attempts by geographers to define an architectural politics.

First, Rancière claims that politics interferes with prevailing "distributions of the sensible," whereby a collective "parcels out places and forms of participation in a common world" (Rancière, 2004a, p. 89; see also Bassett, 2014; Davidson & Iveson, 2015; Purcell, 2014). These distributions are sustained in practices of power, or "policing," which Rancière understands in a "non- pejorative" way as actions engaged in the "halting and opening of flows of circulation" (Chambers, 2013, pp. 71–72) that organise "bodies and voices, define what is seen and unseen, and draw boundaries" (Tanke, 2011, p. 46). Policing is a source of inequality, because it manages life in common by governing the roles and relations of bodies and objects in an endeavour to eliminate dispute and foreclose change. Politics is not involved in contests over power, but follows a distinct, albeit entangled, logic of dissensus that disrupts police orders by creating temporary sites for testing more equal arrangements. Instead of affirming "received" equalities (May, 2008, p. 71), such sites make new ones, which means that Rancière does not approach equality "in any objective sense of status, income, function, or the supposedly 'equal' dynamics of contracts or reforms, nor as an explicit demand or program, but rather as … something that is part and parcel of action, something that emerges in the struggle and is lived and declared as such" (Ross, 2002, pp. 73–74).

Second, politics does not entail a confirmation of prior individual or collective identities – it brings about a "dis identification" that refuses " the given identity" available within the dominant order (Chambers, 2013, p. 104; original emphasis). The outcome of such a refusal is not another identity but a " possible world" (Rancière, 2010a, p. 47) that destabilises present circumstances and alters how they are experienced through " inventing … new configurations between the visible and the invisible, and between the audible and the inaudible, new distributions of space and time – in short, new bodily capacities" (Rancière, 2010a, p. 147). Operating beyond existing social categories, politics " re- frames the world of common experience as the world of a shared impersonal experience" (Rancière, 2010a, p. 150). It opens a space within the police order that belongs to " no one in particular and thus potentially to everyone" (Tanke, 2011, p. 67).

Third, politics is not a " sphere" but a " process" (Rancière, 2010a, p. 78) that resists closure, as politics ends " wherever the whole of the community is reduced to the sum of its parts with nothing left over" (Rancière, 1999, p. 123). This is a mistake made by liberal regimes and their " math of interest- group pluralism," which assumes that everyone is " already counted," irrespective of whether they are included or not (Chambers, 2013, pp. 102– 103). Rancière brings into question the idea that it is possible to add new members to a collective without significantly transforming its composition – " politics can never proceed as if the other can be fully known and incorporated into the social order" (Chambers, 2013, p. 41). He is sceptical of social institutions, because these often seek to subdue dissensus by translating " all conflict into a form of negotiation," hence striving to preserve the police order by means of consensus (Chambers, 2013, p. 74). A political community is a divided and polemical one, revolving around " the impossibility of the people being equal to themselves" (Rancière, 2007, p. 95).

After outlining the main features of Rancière's thinking, we may now turn to consider how his vocabulary can sharpen the notion of politics in geographies of architecture. There have been early calls within the area for "politically progressive" approaches by, among others, Lees (2001, p. 53), who discusses opposing uses of buildings and how these are mobilized in "'identity' formation" by various groups, as well as how academics might take part in such struggles by "making [their] work more public" and "linking up with … practitioners" (Lees, 2001, p. 76). However, Lorne notes that the "radical political possibilities" raised by Lees have remained largely unexplored in later research, which has "failed to engage with … socially- orientated, politically- motivated architects" (2017, pp. 269–270). Geographers, Lorne (2017, p. 271) continues, should therefore direct attention to architects, who

demonstrate "critical human intentionality" and promote "politicized practice" by considering the wider implications of their work beyond buildings.

Although attentive to the transformative potential of practices, Rancière would consider efforts to " politicise" architecture a concern, whenever these serve as a " prescription or program for action" (Ross, 2009, p. 29), or support generalisations about the political character of a whole field, as they do for Lorne, who argues that a " politically progressive geography of architecture … has yet to emerge" (2017, p. 270). Rather than politicising architecture, which can lead to a constraining narrative of " subjects acting on objects … to change things along a linear, progressive temporality" (Ross, 2009, p. 29), Rancière approaches politics as a sporadic occurrence that " in its specificity, is rare" (1999, p. 139). Even when politics takes place, its effects" dissolve quickly once they have been formed" (Chambers, 2013, p. 141; see also Marchart, 2011; Myers, 2016), suggesting that their impact on the world is never guaranteed. Rancière thus outlines an orientation that is wary of "setting the principles for political practice" (2009a, p. 120; original emphasis) and attuned to unexpected everyday manifestations of politics, which requires "watchfulness or attention" (Ross, 2009, p. 29) and repeatedly establishing "what is political in a situation, a gathering, a statement" (Rancière, 2009a, p. 118).

This approach resonates with the work of Yaneva (2017, p. 6) on the precarious " becoming political of architectural objects," where politics is not seen as external to architecture and then intentionally applied on its materialities and practices, but as emerging within these in diverse unanticipated ways. While alert to the messiness, multiplicity and contested character of becoming- political, Yaneva nonetheless always returns to the assumption of politics as " a relational phenomenon" (2017, p. 165), which achieves reality in " a network of actors that all contribute to the complex process of making and building" (2017, p. 30). Rancière departs from this idea by concentrating on irruptions of dissensus that destabilise prevailing distributions of the sensible. Politics does not create networks but produces " intervals" (Rancière, 1999, p. 137) in existing orders so as to make space for probing more equal worlds without assimilating these into a broader project of relation- making (Rancière, 2010a, pp. 79– 80).

Other points of convergence and divergence between Rancière and enquiries into the becoming- political of architecture can be found in an article by Kraftl (2014, p. 276), who explores sustainable housing schemes as "biopolitical regimes" where relations of power and knowledge reconfigure "molar" and "molecular" entities and forces, including policies and material flows, to condition practices of design and dwelling. Likewise, Dekeyser (2017,

pp. 181–182) describes how an intervention by artist Gordon Matta- Clark into a residential building reveals urban inhabitation as shaped by intersecting "micropolitical" and "macropolitical" processes, which range between embodied affects and state regulation. As with Kraftl (2014, p. 288; original emphasis), who investigates whether dominant orderings of space might be destabilised by "dissonant" uses, Dekeyser (2017, p. 188) both critiques existing power relations in architecture and suggests ways of transforming these to generate alternative "geo- imaginations."

Rancière deviates from this work by understanding power and politics as entwined but contrasting logics, one perpetuating orders that are a source of inequality, the other disordering these in the name of equality. Kraftl, for example, uses "biopower" and "biopolitics" as interchangeable terms without addressing their differences or similarities, thereby confirming Rancière's (2010a, p. 101) observation that Foucault was committed to theorising power while overlooking the distinctive character of politics (Tanke, 2011, p. 63) and that "there is not politics out of the sole fact that there are always relations of power" (Rancière, 2009a, p. 118). Dekeyser, who engages with the thinking of Deleuze and Guattari, also assumes an inherent connection between politics and power, which results in a concept of politics applied across an expansive field, from the "conventional political realm" (p. 184) and the "socio- political economies of planning" (p. 184) to the "politico- affective dynamics" (p. 181), "political intentions" (p. 183), "micropolitical assemblages" (p. 182) and "political limitations" (p. 185) of architectural spaces. As Garo maintains in a critique of Deleuze and Guattari, the problem with such a broad concept of politics is that it "lays the ground for its nebulous dispersion, cancelling out all specificity" (2008, p. 57). Arguing that politics does not operate along relations of power but introduces a "gap" (Rancière, 2010a, p. 46) in them that enables the expression of equality, Rancière traces out disruptions to dominant orders less to release the "infinite power of difference," as in Deleuze and Guattari (Rancière, 2004b, p. 163), or to "affirm another type of life," as in Foucault, but rather to highlight "artifices of equality [that] configure a different world- in- common" (Rancière, 2010a, p. 100; original emphasis).

As the following sections indicate, Rancière extends the disjunctive approach elaborated by Kraftl (2010) through elucidating how intervals in architectural relations become political spaces for testing egalitarian compositions, when testing is not considered a method of evaluation against existing criteria, but a process of enacting equalities that undergo "material verification" in encounters with different bodies (Rancière, 1991, p. 32). Likewise, Rancière complicates the understanding of disjunctions as "events," which Kraftl (2010, p. 343) takes from Tschumi's (1996, p. 257) reading of Derrida, who belongs to a long lineage

of thinkers probing the conditions for novelty as a disruptive, excessive and singular instance (Anderson & Harrison, 2010, pp. 20–23). Although Kraftl usefully stresses the unacknowledged role of disconnections in "building events" – a term that Jacobs (2006, pp. 11–12) develops to describe the "networks of association that work to keep [architectural] form in place or to pull it apart" (Jacobs, 2006, p. 4) – Rancière has lately distanced himself from the notion of event due to his view of politics as "uncertain" and as possibly causing "significant transformations in the state of things, or not" (Rancière, 2016a, p. 64). He therefore overcomes the tendency to "romanticize change" in certain geographical versions of event thinking by encouraging a closer exploration of "how events end, never come to pass, or become something else" (Anderson & Gordon, 2017, p. 175). This is also why Rancière suggests that the configurations of equality emerging through intermittent disruptions "must be continually reactivated" (Tanke, 2011, p. 57) – not to stabilise equality, but rather, as demonstrated below, to ensure that it keeps its polemical momentum.

## 3. Methods and materials

The fieldwork for this paper was conducted at Ed Roberts Campus from April 2015 to May 2016 and investigated the design and use of the building. The former was delineated through interviews with architects, clients, disability activists and local residents who had been instrumental in the development of the campus. These were supplemented with extensive archival materials comprising correspondence, drawings, minutes, renderings and related documents, which provided further insight into the progress of the project. Established by the board to conserve a version of this process, the archive was approached as a site not only for " disciplining and stratifying meanings" but also for making novel " connections …between ideas, different kinds of facts and emotions" to bring out the often divergent experiences of the building among its designers, owners and occupants (Crang, 2003, p. 134; see Derrida, 1996, pp. 16– 17).

The use of Ed Roberts Campus was mapped through ethnographic and participatory techniques, including individual and group interviews, as well as observations and video walks with persons visiting and working for each of the organisations in the building. Two groups were pivotal in shedding light on the complex character of the campus, one formed of autistic youth involved in day programmes, another of caretakers, most of them disabled people in a supported employment scheme. As several participants preferred to communicate in non- verbal ways, a major part of the research entailed studying bodily engagements with the building and its materialities, from cleaning carpets and emptying bins

to taking classes in art, yoga and life‑ skills. Such practices uncovered different modes of architectural inhabitation and suggested that the campus did not comprise a coherent and consensual " speech community," where actions, ideas and opinions were acceptable or even understandable to others (Rancière, 2010a, pp. 46– 47). The concepts of Rancière (2009a, p. 116) further illuminated this shifting " field of tensions" by directing attention to discrete points in time and space when political instances were occurring and invited to explore the " worlds" that they revealed and their impact on the prevailing order.

The next section turns to examine the significance of these instances, beginning with an overview of the disability activism of Ed Roberts to offer a historical background for the building. This is followed by a detailed discussion of the operations of dissensus during both the everyday inhabitation of the campus and its design phase. The section concludes with an account of maintenance work in the building and considers how institutional practices might contribute to egalitarian architectures.

## 4. Ed Roberts Campus: testing equality

Severely paralysed by childhood polio, Ed Roberts (1939– 1995) was a pioneer of the disability rights movement. While studying at Berkeley, University of California in the 1960s, he established a programme with his peers that provided housing and mobility assistance for disabled students. In the early 1970s, he co‑ founded the Centre for Independent Living to improve the quality of life for disabled people through " innovative self‑ help and group organizing" (Shapiro, 1993, p. 51). These developments coincided with the proliferation of countercultures in the Bay Area at the time, adopting their style of collective action and protest to give shape to an " oppositional consciousness" and alternatives to the institutionalisation and medicalisation of impairment (Groch, 2001, pp. 65– 67). Over time, the Independent Living Movement has evolved into an extensive global network of centres that offer disabled people advocacy and peer support (Bagenstos, 2014).

The Centre for Independent Living initially engaged participants in " tinkering with their own designs" for bathrooms, kitchens, cars and other everyday objects and spaces (Shapiro, 1993, p. 51). Design was often approached in an experimental manner, dictated by a lack of resources and a general unresponsiveness from those in positions of power. A case in point was the improvised curb cuts and ramps that proliferated on the streets of Berkeley as members of the centre started to intervene in the surrounding urban fabric. For Hamraie (2017, p. 103), such practices did not simply adjust bodies to existing environments, but

reconfigured these environments through involving disabled people as " critical knowers and makers," using their " sensibilities of friction and disorientation to enact design politics."

After the passing of Roberts in 1995, the City of Berkeley and the local disability community wanted to commemorate his advocacy with a building that would support, according to Edith, a former colleague of Roberts, " groups that had grown out of the Independent Living Movement" and inspire " them to work better together." Situated above Ashby train station, the campus was developed by Leddy Maytum Stacy Architects along with board members from the seven disability organisations that presently own and operate the building as a non‐ profit entity (Figure 1). As a guiding idea, the board chose "universal design," which emerged as part of the disability rights movement – including the cultures of making around the Centre for Independent Living – and has since gained worldwide traction through its formalisation as guidelines and standards, as well as through its incorporation in the United Nations Convention on the Rights of Persons with Disabilities, where it is defined as "the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design."[1] The concept is associated with an effort to make accessibility integral to the form and function of design, rather than an afterthought or mere compliance issue, as illustrated by retrofitted ramps and similar assistive devices (Hamraie, 2017; Imrie, 2012; Kullman, 2017).

[FIGURE 1. Exterior of Ed Roberts Campus.]

And yet the formalisation of universal design has tended to cover over its multiple and contested versions, including early " experiments in access‐ knowledge" by disabled people (Hamraie, 2017, p. 112). The following discussion demonstrates that Ed Roberts Campus gives rise to certain distributions of the sensible and attendant policing practices, which have led some to question whether the building is responsive to the complexity of disability experience. Another tension that animates encounters in Ed Roberts Campus concerns the way in which the board emphasises the " common history"[2] of its occupants in the Independent Living Movement (Bagenstos, 2014; Shakespeare, 2006). Many, however, are unable to relate to this narrative and strive to disrupt it – not necessarily to promote individual or group identities, but to live beyond the positions attached to them by others. These disruptions will be explored in the remainder of this section to indicate that, apart from creating access to specific environments, the spatial practices of disabled people can

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[1] https://www.un.org/development/desa/disabilities/convention‐ on‐ the‐ rights‐ of‐ persons‐ with‐ disabilities/article‐ 2‐ definitions.html (accessed 1 November 2017).
[2] https://www.edrobertscampus.org/about/ (accessed 1 November 2017).

prompt a wider rethinking of egalitarian design across simple oppositions between disabled and non- disabled bodies (Boys, 2014; Sánchez- Criado et al., 2016). Implying that " variation … indeterminacy and instability … stand as the conditions of all corporeality" (Shildrick, 2012, p. 39; see also Imrie, 2003), such an approach resonates with geographical accounts of disability that attend to bodies as emerging in shifting material arrangements and asks how those arrangements might be altered to support more diverse forms of agency and association (Davidson & Henderson, 2017; Hall & Wilton, 2016; Holt et al., 2012; Judge, 2017).

## 4.1. Neurodiverse space: inhabiting the campus

There are countless holes in the soft seating around the lobby of Ed Roberts Campus, picked by some of the autistic young persons, aged 17–20 years, who take part in day programmes offering life- skills training, work experience and community integration. Adam, who runs the programmes and also has autism, considers this conduct regrettable, but recognises its significance as a potential reaction to an environment experienced as stressful. Autism is a neurological spectrum condition that may cause difficulties with communication, sensory processing and social interaction (Davidson & Henderson, 2017; Judge, 2017). For Adam, Ed Roberts Campus is not responsive enough to "neurodiversity" – a term that refers to autistic experiences as "irreducible to a set, categorical assignment of symptoms and limitations" (Judge, 2017, p. 6) – and among the evidence he lists the "echoey" lobby, the fire alarms that "cut through the brain" and the "loud" lighting.

Drawing on Rancière, the actions of young people might be understood as moments of dissensus that intervene in the spatial and temporal order of the building (Figure 2). Picking holes in the furniture exposes a "gap in the sensible" by making "visible that which had no reason to be seen" (Rancière, 2010a, p. 46), or that the campus, despite its proclaimed accessibility, can be a disconcerting setting for some occupants. It suggests, above all, that "neuro- affective difference" may produce more radically divergent "worlds" – defined by "powerful, bewildering effects [of] sensory confusion or co- mingling" (Davidson & Henderson, 2017, pp. 79–91; see also Judge, 2017) – than the ones described in geographical studies on architectural affect, which trace out the pre- personal intensities emerging in encounters between bodies and environments mainly from a "neurotypical" perspective (see Kraftl & Adey, 2008; Rose et al., 2010). In the below vignette, young people further highlight such differences by inhabiting the campus lobby in an array of ways:

It is midday and the group has gathered by the entrance to wait for the art class to start. Yuk walks in patterns and while avoiding eye contact, he is also wearing a contagious smile that he directs indiscriminately to everyone. Del approaches most people in the lobby, shaking their hands and looking long and deep into their eyes. Amanda suddenly begins to shout at Eddie, who stands too close to her. 'Eddie, give me space! Eddie, give me space,' her voice echoes through the lobby. I try to engage Eddie to film, but he has to cover his ears and so cannot hold the camera. Jorge, his mentor, explains that this is Eddie's way of showing that he struggles with the acoustics of the building. Eddie continues to wander around holding his ears long afterwards.[3]

Adam describes the above interactions as "messy," which for him is not a negative term, but one that affirms the variegated styles, whereby neurodiverse people may engage with environments, some being verbal, some reserved, some moving around in irregular patterns and some being loud. Due to the plurality of such styles, they entail less a confirmation of a particular group identity than a cultivation of diverse, occasionally contradictory modes of occupying space that considerably broaden the affective and sensory range of the building. These messy interactions also involve the youth in reconfiguring the materialities of the campus. Eddie, for instance, avoids the arts class due to the noise and insists on using the adjacent storage room, where he has a desk and chair, thus inserting "one world in another" (Rancière, 2010a, p. 46) by opening a temporary interval for experiences that are partly distanced from the intensity of the classroom. The office serves a similar function, as Adam has turned it into an alternative site of encounter by removing halogen lighting to reduce disturbing flicker, by playing calm music to manage noise levels, by setting up screens around a desk to shield it against the surroundings and by having coloured signal cards available to assist with the communication of moods (Figure 3).

Such spatial recompositions engage the youth in "experimenting with who they might be and how they might live" in the building (May, 2008, p. 130). The office in particular is a unique environment, as it enables an investigation of more equal architectures that are sensitive to neurodiversity (see Davidson & Henderson, 2017, pp. 81– 85). For Adam, it serves as a reminder of what the campus could become were it adjusted to a wider variety of bodies: " there would be physical space for messiness; there would be a space to be loud, or to be dark and quiet; there would be space to pick at the furniture."

[FIGURE 2. Neurodiverse youth in the lobby.]

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[3] This vignette has been composed from a series of empirical materials, including field notes, sound recordings, photographs and participatory video with young people. All these materials were interpreted and verified against each other during the analysis to create the account.

[FIGURE 3. Desk and signal cards attached to the screen on the right.]

Neurodiverse youth, then, turn Ed Roberts Campus into a " gauge of … equality" by testing whether it could incorporate more difference (Rancière, 1991, p. 32). They exemplify how bodies are " messy" and inhabit space in conflicting ways that cannot entirely be anticipated by formal solutions. Even the lobby with its imposing helical ramp (Figure 2), which facilitates smooth circulation between floors and is often promoted as an emblem of successful universal design,[4] creates the aforementioned unsettling " echoey" acoustics, leading people like Eddie to cover their ears and Adam to feel unable to "have a conversation" with colleagues, as he " could not hear what the person was saying […] because people over [there] were talking." The lobby illustrates, as Rancière writes, how " the community of equals can never achieve substantial form…It is tied to the act of its own verification, which is forever in need of reiteration" (2007, p. 84). Neurodiverse youth could be seen as evoking an " unfinished" architecture, where buildings are co- evolving with bodies in various states of divergence, as occupants alter spaces to try out novel material arrangements that disrupt " built- in behaviour patterns and other forced expectations" (Lerup, 1977, pp. 144– 152; see also Hamraie, 2017, pp. 101– 103). As the next section indicates, similar interventions occurred during the design phase of Ed Roberts Campus.

## 4.2. Electrochemical space: designing the campus

Applying the concept of universal design (Hamraie, 2017; Imrie, 2012; Kullman, 2017), the architects and the board sought to widen the accessibility of the building by relying on their experiences of disability and organising community meetings, where the project was presented, as one architect explained, for "the broadest possible range of individuals with a whole variety of ability levels." Alternative techniques were also adopted, such as "braille printed drawings to … help people with sight disabilities to understand plan configurations" and "tactile models, … so people could feel … the character of the forms" (see Figure 4). These activities were grounded in consensual thinking that aimed to create a "speech community" where "partners" (Rancière, 2010a, p. 46) engage in a dialogue to ensure that all are "fairly counted" (Tanke, 2011, p. 45) as part of the emerging architectural order. One of the board members, Anne, illuminated this approach, when she argued that a key concern

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[4] https://www.edrobertscampus.org/design/ (accessed 1 November 2017).

was whether they had considered, for instance, "somebody [with] epilepsy, or diabetes," and if "there were perspectives that needed to be thought of that we hadn't thought of."

[FIGURE 4. Tactile model of Ed Roberts Campus.]

For Linda, who has chemical and electromagnetic sensitivities, the design phase raised the worry that some occupants "would be locked out of yet another building that was said to be accessible." Chemical and electromagnetic sensitivities are characterised by a complexity of symptoms, from skin irritation and tinnitus to anxiety and depression, whose causes are devices, many of them " subclinical," or undetectable using available diagnostic tools (Kroll-Smith & Floyd, 1997, p. 53). Although being informed by the board that they " entered the process at too late a time," Linda and her peers duly intervened and stressed its " restricted form of universalism" (Rancière, 2016b, p. 84) by exposing materials, some of which were until then deemed neutral, as conduits for electromagnetic waves, allergens, harmful chemicals and other agents with potentially disabling effects.

Despite a concerted effort to accommodate people with chemical and electromagnetic sensitivities— as demonstrated, for example, by the decision to outgas materials ahead of installation and maintain fragrance- free spaces— the board conceded that the obligation " to comply with building codes or other standards has not allowed [Ed Roberts Campus] to meet the needs of all[5]." Some proposals by those with environmental sensitivities might have been atypical in design terms, such as including additional power panels in offices so that individuals susceptible to electromagnetic waves could deactivate equipment whenever required, or creating a room protected from wireless signals. Still, the primary difficulty appeared to be that environmentally sensitive persons did not conform to existing " social and identity groups" (Rancière, 2010a, p. 79) – they rarely attended community meetings, responding instead to proposals online or by phone and in writing, all the while displaying opinions that, according to David, a partner, contradicted each other: " it was quite impossible actually to get anyone to agree to anything."

Another interpretation is that those with chemical and electromagnetic sensitivities, who sometimes view the body as " a porous surface, absorbing the environments it touches" (Kroll- Smith & Floyd, 1997, p. 105), were not as much seeking to define a coherent group identity as involve, through a series of disruptions, people in a closer investigation of the effects that building materials have on a variety of bodies, irrespective of their capabilities.

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[5] https://www.edrobertscampus.org/design/ (accessed 1 November 2017).

Rather than defending their own interests or stressing differences to other occupants (Shakespeare, 2006, pp. 68– 82), they explored whether architecture could enable new kinds of " sensory equality"  (Rancière, 2009b, p. 279) – here illustrated by Linda's account of her exchanges with guide dog owners:

People with horrible allergies to dogs or horrible chemical sensitivities to the pest control products that are used for the dog's protection and the people's protection from fleas, have absolutely to avoid dogs or any animals or dander. So, we talked a lot about how to provide protection and safety for the people who use dogs as well as for the dogs [and] for the people who cannot be exposed to dander or the saliva that dogs clean themselves with or the pest control products on the dogs.

Turning the materialities of the campus into a polemical site, people with chemical and electromagnetic sensitivities delineated a "shared impersonal" world (Rancière, 2010a, p. 150) that opened new possibilities for bodies to coexist in the building. A world, for example, where dogs could be party to similar experiences of "protection and safety" as their owners and persons with environmental intolerances. Attending to pollutants and related intangibles, Linda and her peers were not establishing a common essence for the campus, but examining whether it might be made responsive to the "complicated web of dissonant connections between bodies" (Bennett, 2009, p. 4), formed by the competing needs of occupants who may be differently affected by pest control products, saliva, dander and other materials and substances.

People with environmental intolerances, then, illustrate how contests over architectural space can occur "at the molecular level of preindividual states of things" (Rancière, 2009b, p. 285). This echoes recent geographical thinking on materiality as "a field of distributed and barely tangible forces" (McCormack, 2007, p. 372), which become enmeshed in novel patterns of governance and opposition (Dekeyser, 2017; Kraftl, 2014). Rancière complements such work by asking how "impersonal, imperceptible, and indiscernable modes of being" can translate into an egalitarian community (Vallury, 2009, p. 235). While authors like Dekeyser (2017, p. 185) affirm the "polyvocality and excessiveness" of architecture and "its capacity to operate as 'a molecular affair,'" Rancière is interested in how the lively materialities of the world might serve as a site for testing alternative kinds of "basic equality" (Rancière, 2010b, p. 5). In this case, persons with chemical and electromagnetic sensitivities did not simply evoke the molecularity of architecture but used their knowledge to influence the selection and treatment of construction materials so as to expand the equality of Ed Roberts Campus. They thereby suggested a "more demanding form of universalism" (Rancière, 2016b, p. 84), where the challenge of inclusion cannot be solved with a

"numerical operation" (Bingham & Biesta, 2010, p. 82) that gathers ready- made identities into a consensual whole around which professionals fashion a material order. As new bodies will always appear to problematise the composition of a building, all the way to the invisible particles that pass through it, inclusion requires "constant verification in an open, experimental and non- teleological manner" (Bingham & Biesta, 2010, p. 84). This raises the inescapable question of how architecture might support such testing beyond the design phase – an issue that has become pressing for the management of Ed Roberts Campus, as the following section testifies.

## 4.3. Communal space: maintaining the campus

Rancière (2007, p. 86) argues that a " polemical community" is difficult to sustain through established social and institutional practices, as these tend to stabilise into distributions of the sensible with " preassigned identities and places" (Genel & Deranty, 2016, p. 25). This is evident in the daily management of Ed Roberts Campus, which entails an attempt to keep the building inclusive without compromising on its safety. Mary, a partner, explained that the campus has one security guard in the evenings and its facilities, including ground floor toilets, are open to all: " I would hate there to be an incident that would force us to shut the bathrooms, because I think it really is a public service." The board had to reconsider this policy after some visitors threatened others, stayed beyond closing time and, most worryingly, fired a gun in the toilet. Such disturbances led to the installation of CCTV cameras, a decision that was supported by Erica, a director of an organisation for families with disabilities, who still considers the surveillance to be insufficient: " we have more security concerns than the other partners, because of having little children in here, pregnant women [… ] so we [… ] set our alarm systems [… ] separately."

One problem with the expansion of policing is that dissensus might be interpreted as requiring elimination, which can lead to " closures of the sensible world that restrict the conceivable and the possible" (Tanke, 2011, p. 47). Adam argues, for example, that his staff are often asked to act as " gate keepers" for neurodiverse youth: " I'm not sure other [… ] occupants are called into the building manager's office as much as I have been to explain ' behaviors.'" This demonstrates how policing may render certain types of participation invisible by framing them as " noise" rather than " voice," thus downplaying their political significance: " The police is that which says that here … there's nothing to see and so nothing to do but move along" (Rancière, 2010a, p. 45).

While answerable to the management, the caretakers of Ed Roberts Campus appear more sensitive to political moments. Many of them have a disability and personal experience of the issues faced by different occupants. Engaging with the messiness of architectural inhabitation— cleaning toilets, rearranging furniture, polishing floors, picking up rubbish – the caretakers have access to the " microexperiences of repartitioning the sensible" that characterise politics and can easily be overlooked by the board (Rancière, 2009b, p. 277). Geographies of repair and maintenance have amply described how built environment professionals respond to " successive scenes of interruptions" (Strebel, 2011, p. 259) in ways that are defined not so much by " seamless technical progress" as by " an abundance of contested views and a history of abandoned techniques" (Edensor, 2011, p. 248). However, less has been said about the importance of cultivating an awareness of the diversity of bodies that inhabit buildings and, above all, the sometimes conflicting requirements of these bodies. This is vital knowledge for people like Jim, who is here discussing the climate control system of the campus:

We'll have [… ] a person who's a full quadriplegic who can't regulate her body temperature very well, right next to an office [where] a person is clearly able bodied, and a lot of times they'll share [a Heating, Ventilation and Air Conditioning] unit and so [… ] I've had to [… ] block their vents, there's one person that's too cold and the other person's too hot but the system can only do one or the other, so I'll have to actually go in and [… ] close the [aperture] one side and open it up more on the other, and of course we have people who don't like the wind, but they don't want their temperature changed.

Sustaining a thermally responsive environment asks for ongoing attention, as caretakers have to intervene by moving from one office to another, blocking and unblocking vents to bypass technical functions that are insufficiently sensitive to bodily variation. A similar challenge is provided by the conference room carpets that are in need of replacing, a task that has proven unexpectedly complex: whereas patterned carpets might be unsuitable for people prone to seizures and those with chemical sensitivities may prefer not to have carpets at all, hearing impaired persons find it difficult to orientate on hard floors, as these amplify noise (Figure 5). Additional obstacles are introduced by the centralised lighting control system, as Jim explains:

A lot of people with low or no vision are very sensitive to light, even people who are blind can be very sensitive to light, so you have to be very aware of making sure that lights aren't flickering, that bulbs aren't exposed […] and then obviously making sure the place is properly illuminated […] it requires constant time changes and updates […] so that usually will cause problems because we have […] 120 different lighting zones.

[FIGURE 5. Carlos, a caretaker, cleaning the carpet.]

Caretakers therefore operate as part of a polemical composition of bodies and materials, where "being‑ together is being-between: between identities, between worlds" (Rancière, 1999, p. 137). Rather than siding with specific users or seeking to police the building, they respond to a diversifying population that reshapes space to articulate equality. At the same time, caretakers indicate how organisations can become attuned to new affective and sensory regimes, suggesting that Rancière's "disruptive" orientation may be combined with an "institutive" one, which allows egalitarian enactments to be "kept alive" through everyday practices (Marchart, 2011, pp. 141–143). This resonates again with work on geographies of repair and maintenance, where "piece‑ by‑ piece adaptation" is described as a "cause of innovation, acting as a continuous feedback loop of experimentation which, through many small increments in practical knowledge, can produce large changes" (Graham & Thrift, 2007, p. 5). The caretakers illustrate that tending to politics does not always have to involve controlling distributions of the sensible, but sustaining an environment that adjusts itself to dissensus and hence to "what is not given as being in‑ common" among its occupants (Rancière, 1999, p. 138).

## 5. Discussion: politics, equality, dissensus

Bringing the vocabulary of Jacques Rancière and Ed Roberts Campus into conversation, this paper has elaborated an alternative architectural politics around instances of dissensus that disrupt the present configuration to create temporary sites for the demonstration of new equalities. Three specific features of this argument imply further lines of enquiry within and beyond geographies of architecture and will be explored in what remains of the paper.

First, while accounts of buildings as a "relational effect" (Jacobs, 2006, p. 11) have attempted to broaden the notion of politics (Dekeyser, 2017, p. 187) by describing in intricate detail how it permeates both the "molar" and "molecular" dimensions of architecture (Kraftl, 2014, pp. 274–275), this paper has considered politics beyond relationality in general and power relations in particular. Rancière argues that politics does not operate along relations of power, but through rare disruptions to them that produce unexpected intervals for expressing equality. Above all, he maintains the uncertain lifespan of politics and the difficulties of sustaining its effects as part of available social practices and institutions, as exemplified by the design and inhabitation of Ed Roberts Campus. In doing so, Rancière's work qualifies recent debates in political geographies regarding an "inclusive interpretation of

what counts as political" and its potential to "give rise to radically new understandings of politics" (Mountz, 2018, p. 760). Following Rancière, such an all- embracing approach needs to be coupled with a critical awareness of the distinctive character of politics as well as its fragile presence in daily settings – otherwise it might become impossible to recognise "radically new" versions of politics whenever these present themselves. Rancière also shares the scepticism of Joronen and Häkli concerning scholarship on "ontological politics" which, despite affirming reality as process, deduces politics from a limited set of predefined ontologies, resulting in an "inability to think of politics beyond its own foundations" (2017, p. 574). Rancière proposes a politics that is "ontological in a negative sense only, as a disruptive force" (Deranty, 2003) – not so much grounded in being as in the "being- between" (Rancière, 1999, p. 137), which emerges when a gap making another world possible is momentarily opened in prevailing distributions of the sensible.

Second, this paper has invited geographers to recast equality as a " polemical term" (Chambers, 2013, p. 27), deployed less to demand inclusion in the dominant order than to disrupt it so as to facilitate alternative arrangements of living together. For Rancière, equality is not a distant goal or principle for action, but an ongoing process that is set in motion by bodies and undergoes verification in relation to them. This was shown by neurodiverse youth, whose " messy" interactions stressed the complexity of embodied experience and revealed the impossibility of containing it within certain distributions of the sensible, including ones enacted by universal design, which turned out to perpetuate narrow ideas about corporeality through built form (Hamraie, 2017; Imrie, 2012; Kullman, 2017). A politics based on testing equalities, then, disconnects bodies from the limited positions allocated to them and creates openings for change. Emerging from the work of Rancière is an approach that can be used to map "operations of equality … in vastly different spaces and societies" (Davidson & Iveson, 2015, p. 556) to keep the notion alive to the multiplicity of responses to situations of inequality.

Finally, the concepts developed in this paper can augment methodological efforts by geographers to " foster new progressive possibilities," from working with practitioners on interventions into built environments (Lorne, 2017, p. 283) to investigating overlaps between design and performance as a form of community engagement (Merriman, 2010). Rancière does not advocate specific methods for evoking politics, but his notion of dissensus acts as a caveat against the assumption that some spatial practices are inherently more conducive to politics. As people with chemical and electromagnetic sensitivities implied, the idea of creating a common arena for negotiating design and architecture (Day & Parnell, 2003) – even when this involves " opportunities for others to participate in contestation" (DiSalvo,

2012, p. 5) – may lead to the exclusion of " unprogrammed actors" and a failure to notice their unconventional forms of engagement (Rancière, 2007, p. 103). Disruptions, however, are not a passing phase during a project, nor are they reducible to " managed conflicts" (Tanke, 2011, p. 46). Instead, dissensus is part of the perennial testing of equality by those whose agency is constrained by the existing order. While Rancière argues that politics cannot be " progressed" with particular orientations or techniques, this paper has indicated that his vocabulary encourages geographers to both train their sensitivity to irruptions of equality and tend to the transient effects of these to further expand their potential.

## Acknowledgements

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