

Giancarlo De Carlo's Concept of Architecture – a Powerful and Inclusive Tool for Thinking about Educational Space

Giancarlo De Carlo; Architecture; Architect; Education; Schools

/Abstract

This paper explores Giancarlo De Carlo's concept of architecture as discussed in his writing and argues that it offers a particularly inclusive way of thinking about educational space. Drawing also on the work of Mieke Bal for whom concepts can act as common languages across disciplines, the paper shows how De Carlo's "architecture" achieves openness through expanding the categories of "designer" and "project" and so might be especially helpful as a common language among architects and educationalists. Illustrating some of the contemporary challenges facing education as well as De Carlo's personal interests in schools and universities, the paper applies the architect's concepts to open up discussion about the future of schooling.

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Introduction

How can Giancarlo De Carlo's architecture help us think better about education and educational spaces? In this paper I explore this question and suggest that it is De Carlo's ontology of architecture – what architecture is – that makes his work so useful. Through a developed and coherent elaboration of architecture as "the organization and form of physical space"¹, school users as designers² and an extension of what counts as 'project',³ De Carlo draws attention to the politics and potential of building for education. In the process, he provides a powerful set of thinking tools for re-examining the spatial instruments and processes of education, and opening these to richer and more democratic forms of organization.

I am not an architectural historian and offer little in the way of contextualisation vis-à-vis other architects and architectures. Instead, I write from the perspective of the social sciences and with an interest in how concepts of space are defined, mobilised and then put to use in the field of education, particularly schooling. My aim here is to consider the implications of De Carlo's ontology for thinking about space and educational spaces.

"Ontology" is a fancy word and I hesitated about using it for something as ordinary as physical space. Nonetheless, it does seem to be the right word since De Carlo does more than provide a definition of architecture. His writings (and designs) return again and again to the question of what buildings and spaces are, who they are for, why we make them as we do, why we even need them and whether any of these activities are appropriate without a deeper consideration of "what it means to be human in physical space".⁴ One way to approach the definitional and classificatory work De Carlo undertakes to establish this ontology is to borrow from the social theorist Dave Elder-Vass who argues that general ontologies (i.e. descriptions of being, of what is, together with explanations of the properties composing things that exist and the relations between them) can usefully be broken down into regional or domain-specific ontologies and applied "to the needs of particular disciplines or groups of disciplines in combination with the specific empirical knowledge of those disciplines [to] generate domain-specific ontologies. Such domain-specific ontologies... identify the sorts of elements that populate the domain".⁵ Why is such a move important?

1 Giancarlo De Carlo and Franco Bunčuga *Conversazioni su Architettura e Libertà* (Milano: Elèuthera, 2014), 125.

2 Giancarlo De Carlo, "Why/How to Build School Buildings," *Harvard Educational Review* 39, no. 4 (1969): 32.

3 See, in particular, Giancarlo De Carlo, "Reflections on the Present State of Architecture - the Inaugural Thomas Cubitt Lecture," *Architectural Association Quarterly* 10, no. 2 (1978): 36–37. Inverted commas appear in the concept of 'project' as well as its temporal extension is called into question.

4 Giancarlo De Carlo and Franco Bunčuga, *Conversazioni su Architettura e Libertà*, 252.

5 Dave Elder-Vass, *The Causal Power of Social Structures: Emergence, Structure and Agency* (Cambridge: Cambridge University Press, 2010), 68.

The main reason is that “the social world cannot be theorised or explained successfully without paying explicit attention to its ontological foundations”.⁶ For the immediate purposes of this paper, knowing about these ontological foundations matters on two levels. First, so that our theory-building (of which design is one manifestation) is coherent. Second, so that we can consider what and how the conceptions we build of the world in- or exclude or otherwise position other “parts” e.g. people or time, for instance, and their relative roles in making architecture happen. It is worth remembering a point often made by the geographer, Doreen Massey: “the way we imagine space has effects”⁷. Effects come about through concepts forming the underpinning background to our decisions, orienting and framing values, helping us to decide what is important in our worldviews, and orienting our action in the world itself.

An architectural-historical precedent supports my approach. Here Federico Bilò’s recent argument regarding the work of Giuseppe Pagano parallels mine since Pagano “proposed extending the perimeter of architecture, so including the rural built environment, and this extension brings important conceptual and practical consequences that need to be examined”.⁸ De Carlo too proposed extensions to the perimeter of architecture and, similarly, the conceptual and practical consequences should be explored. This then is the methodological component: we study De Carlo’s approach to architecture acknowledging that it is a way of building the world and, simultaneously, of stating that the world is a certain way.

Once I have explored De Carlo’s ontology in more detail, I look at it from a different perspective using Mieke Bal’s notion of “travelling concepts”. Bal’s is a social, relational take on concepts: “Concepts are the tools of intersubjectivity: they facilitate discussion on the basis of a common language” and as “miniature theories”⁹, they help to show that the way in which De Carlo constructs his “architecture” reveals a particularly open and travellable concept that can increase participation at a discursive level.

Four further sections follow this introduction. In Section 2, I focus on education, exploring current concerns and contemporary research cross-overs from architecture and planning to education (and vice-versa). In the final part of this section I look at De Carlo’s education-specific architectural writing. Section 3 turns to De Carlo’s ontology proper: I explore the definition of architecture, project and a version of “users-as-designers” and how these help to think about architecture and education. In Section 4 I discuss these in relation to education and also return to Bal’s “travelling concepts” and how De Carlo’s way of thinking offers an open and democratic means to critically explore school space. Section 5 is a brief conclusion. The sources

6 Ibid: 69.

7 Doreen Massey, *For Space* (London: SAGE, 2005), 4.

8 Federico Bilò, *Le Indagini Etnografiche Di Pagano* (Siracusa: LetteraVentidue, 2019).

9 Mieke Bal, “Working with Concepts,” *European Journal of English Studies* 13, no. 1 (1 April 2009): 18, 19.
<https://doi.org/10.1080/13825570802708121>.

used range from an early (1947) contribution of De Carlo's on schools and planning in *Domus* to comments on participation written as late as 2002. Less evident perhaps, the universities and schools designed by De Carlo and which I visited in San Miniato (Pisa), Catania, Urbino, Osoppo and Buia, were nevertheless fundamental for the argument put forward here.

2. Education

I use this section to briefly explore some of De Carlo's interests in education and show how his thinking fits with contemporary issues facing schools as well as research interests intersecting across architecture, planning and education. However, first it is worth spending a little time exploring some of the immediate demands on and for education.

2.1 Contemporary Intersections: Architecture, Planning, Education...

Notwithstanding the very significant local differences and traditions that continue to shape education, it is important to recognise broader trends and the powerful mechanisms shaping them:

Spaces of education in Europe and all over the world are being reshaped by complex transformations. These may be partly related to the dominance of the neo-liberal agenda and to the effects of the financial crisis, and partly to inherent changes either connected to the diffusion of the new technologies of information and communication, or to the repositioning of the nation state and its modernistic education project.¹⁰

This is certainly a broad overview but I think useful to see the overall educational landscape and the many different kinds of change shaping it. If we want to understand how these transformations interact across scales (and across different kinds of space), it is essential to keep their connections visible and so available for analysis. In practice, this will require understanding across domain-specific ontologies of space: knowing what constitutes them, their scales of operation and how we tend to categorise their production e.g. whether we associate them with architecture, planning, forms and tools of international educational governance such as PISA (Programme for International Student Assessment), 'Code/Space'¹¹, capital and social relations more broadly, or particular assemblages of these. In 'Built Policy'¹², I outlined one way of doing this by borrowing from Lascoumes and Le Galès' sociology of policy instrumentation.¹³

¹⁰ Paolo Landri and Eszter Neumann, "Mobile Sociologies of Education," *European Educational Research Journal* 13, no. 1 (2014): 1. <https://doi.org/10.2304/eerj.2014.13.1.1>.

¹¹ Rob Kitchin and Martin Dodge, *Code/Space: Software and Everyday Life* (Cambridge, Mass.: MIT Press, 2011).

¹² Adam Wood, "Built Policy: School-Building and Architecture as Policy Instrument," *Journal of Education Policy* (20 February 2019): 1–20. <https://doi.org/10.1080/02680939.2019.1578901>.

¹³ Pierre Lascoumes and Patrick Le Galès, "Understanding Public Policy through Its Instruments - From the Nature of Instruments to the Sociology of Public Policy Instrumentation," *Governance* 20, no. 1 (2007): 1–21. <http://dx.doi.org/10.1111/j.1468-0491.2007.00342.x>.

But De Carlo – ever fighting against the “idiocy of specialisation”¹⁴ – was always clear about the need for a holistic approach to space, advancing the then unfashionable, seemingly unprofessional¹⁵, view that “...city planning and architecture [are] interdependent scales of the same problem”.¹⁶ I will return to this idea but it is important now because it can help to think about *which* kinds of space we might need to consider and *how* given that we are encountering new kinds of space and physical space is modulated in new ways.¹⁷

These interacting spaces have real effects in the world, explored here in two brief examples. The so-called ‘vertical schools’ in Australian cities that generate a great deal of press attention are certainly influenced by both architectural and planning interest in densification and the advantages afforded by increasing social infrastructure in inner city areas. But the story is always broader and we need to ensure that connections to what Megan Nethercote sees as part of verticality’s broader allure, namely ‘an emphasis on land ownership for value-creation and rent-extraction’¹⁸ remain visible. The traditional lack of communication across architecture, planning and education means that stories such as these are often dealt with as if an either/or logic applies, i.e. that either educational or planning concerns define the narrative. Similarly, a 2018 Guardian article explored the ‘Death of the school staffroom’¹⁹ in new school designs in England. If this is the case (data are hard to come by), it seems wise to retain an open stance and see this disappearance as *potentially* connected to the financialisation of space *and* reduced school building budgets *and*, as my own research showed, the use of email to deliver information to teachers so making physical space seemingly redundant and more costly relative to email.

These are just two examples but they (and more extensive studies²⁰) illustrate the need to see spaces of education broadly: not only as classroom or as buildings, or tools of urban planning, or performance-based, international comparative frameworks of attainment, or parts of policies for developing human capital but to insert “and’s” in place of those “or’s”, to see and think across all of these disciplines, fields and scales. They interconnect and the kind of holism De Carlo argued for will be increasingly useful as more forms of space are more tightly imbricated and implicated.

14 De Carlo, “Reflections on the Present State of Architecture,” 37.

15 Luigi Prestinenza, “Architetti d’Italia. Giancarlo De Carlo, l’isolato,” *Artribune* (4 September 2018). <https://www.artribune.com/progettazione/architettura/2018/09/giancarlo-de-carlo-storie-italia/>

16 De Carlo and Bunčuga, *Conversazioni su Architettura e Libertà*, 104.

17 For example, “software matters because it alters the conditions through which society, space, and time are formed” Kitchin and Dodge, *Code/Space*, 66.

18 Megan Nethercote, “Melbourne’s Vertical Expansion and the Political Economies of High-Rise Residential Development,” *Urban Studies* (31 January 2019). <https://doi.org/10.1177/0042098018817225>.

19 Nicola Slawson “Death of the School Staffroom – Lack of Space or Divide and Conquer?,” *The Guardian* (13 March 2018). <http://www.theguardian.com/education/2018/mar/13/school-staffroom-england>.

20 The following is a very developed example of research crossing urban studies and schooling: Pauline Lipman, *The New Political Economy of Urban Education: Neoliberalism, Race, and the Right to the City* (New York: Routledge, 2011).

2.2 Renewed Interest in Spatial Questions of Education?

De Carlo's architecture provides an effective means to stir up thinking about space and education at a time when educational aims and governance have narrowed, restricted through the language and medium of numbers as the dominant form of control. Attempts to look forwards and broaden the ways we educate reveal an "evisceration of a progressive imaginary"²¹ while looking back, a "repression of public memory takes place"²² and so we are maneuvered into an artificially restricted present.

Thankfully, some signs of change are beginning to show and re-engagement with De Carlo's work is timely. Within and across disciplines, questions of architecture, space, the urban and education are being asked. Keri Facer and Magdalena Buchczyk, for example, have shown how cities and learning are together helping citizens "adapt to contemporary challenges from economic inequality to sustainability"²³ complementing new forms of learning extending beyond the school²⁴. Formal connections between urban planning, buildings and education are weak but developing through, for example, research in Germany exploring education as a "component of the city"²⁵

And there are an increasing number of historical examples to draw on that connect to De Carlo and his peers e.g. Federica Doglio's 2018 exploration of Shadrach Woods and Cedric Price's radical forms of spatially continuous education²⁶ and Selina Komers' 2019 use of De Carlo's writings to investigate how the school might be opened up physically and democratically.²⁷ At this point it would be worth exploring De Carlo's own educational work in more detail.

2.3 De Carlo and Education

De Carlo was intimately involved in education throughout his professional career, designing almost twenty schools and universities. He taught in the CIAM summer school and later his own ILAUD (International Laboratory of Architecture and Urban Design), researched architectural education, taught in a technical

21 Bob Lingard, "Policy as Numbers: Ac/Counting for Educational Research," *The Australian Educational Researcher* 38, no. 4 (1 November 2011): 355. <https://doi.org/10.1007/s13384-011-0041-9>.

22 Henry A. Giroux, *The Violence of Organized Forgetting: Thinking Beyond America's Disimagination Machine* (San Francisco: City Lights Books, 2014): 30.

23 Keri Facer and Magdalena Buchczyk. "Towards a Research Agenda for the "Actually Existing" Learning City," *Oxford Review of Education* 45, no. 2 (4 March 2019): 151. <https://doi.org/10.1080/03054985.2018.1551990>.

24 Julian Sefton-Green and Ola Erstad, eds., *Learning Beyond the School: International Perspectives on the Schooled Society* (London: Routledge, 2018).

25 Angela Million, Anna Juliane Heinrich and Thomas Coelen, "Education, Space and Urban Planning: Education as a Component of the City" (New York, NY: Springer, 2017).

26 Doglio, Federica. "The School as a City and the City as a School'. Shadrach Woods and Cedric Price: Experiments to Rethink the University." *Territorio*, no. 86 (2018): 7–16. <https://doi.org/10.3280/TR2018-086001>.

27 Selina Komers, "Beyond The "Walls" Of The School: Opening Up Education", Masters of Philosophy of Education Thesis, UCL Institute of Education, 2019. https://www.researchgate.net/profile/Selina_Komers/publication/336678984_M_A_Philosophy_of_Education_Beyond_The_'Walls'_Of_The_School_Opening_Up_Education/links/5dac77d54585155e27f76634/M-A-Philosophy-of-Education-Beyond-The-Walls-Of-The-School-Opening-Up-Education.pdf.

college after the war and then in tenured in Venice and Genova and as a visiting professor at MIT, Berkeley and elsewhere.

In writing too, the personal and intellectual interest in education is clear. De Carlo saw educational institutions as more than mere outputs of planning processes and as tools in their own right as the following quotation from a 1947 *Domus* special edition on schools indicates: "The school today is no longer a building where we accidentally spend a period of our lives; it is a nucleus around which the life of the whole collectivity orbits".²⁸ As is typical of De Carlo, new terms are not dropped in to spice up the text but worked carefully into a larger system of thought. For instance, "nucleus" and "orbit" will reappear, refined, in a 1969 paper on educational and school design for the *Harvard Educational Review*. There, as two key elements in a dynamic movement, the orbit would expand through activities and occasional connections with other physical infrastructure into the urban fabric and working lives, so complementing the specialised and more formal knowledge-based work taking place in a static nucleus. In this way and in conjunction with the city itself, nucleus and orbit might enable education to become "an omnipresent pattern, capable of penetrating everywhere and of being continually penetrated by the happenings of society".²⁹ The holistic attention to educational space, activities and the life of the "collectivity" prefigure recent interest in social infrastructure.³⁰ Indeed, one advantage of infrastructure-as-lens is its ability to escape containment in architecture, planning or other disciplines – a feature that may well have appealed to De Carlo, as we shall see.

These comprehensive interests in education are important to acknowledge – they not only mark out an area of application for De Carlo's professional life; they are integral to it. Hence, we can think both *about* De Carlo as an educationalist and *with* him, i.e., as a theorist of education by virtue of his work on educational space. His architectural ontology, to which I turn now, is central to this.

3. A Particularly Inclusive Architecture

De Carlo offers a particular account of architectural reality, of what architecture *is*. This account is more comprehensive than a one-off definition; it elaborates particular understandings of 'project' and 'designer', for example, as well as the relations between them. The account is also coherent; its constituent parts and the narrative it provides tie logically together, constituting what can be called, after Elder-Vass (cited earlier), a domain-specific ontology.

Seeing De Carlo's interests and activities as outcomes of a larger ontological project mitigates the risk of over-emphasising the surface features or particular

28 Giancarlo De Carlo, "La Scuola e l'Urbanistica," *Domus*, no. 220 (1947): 17.

29 Giancarlo De Carlo, *Why/How to Build School Buildings*, 27.

30 For a thorough account, see Latham, Alan, and Jack Layton, "Social Infrastructure and the Public Life of Cities: Studying Urban Sociality and Public Spaces", *Geography Compass* 13, no. 7 (2019). <https://doi.org/10.1111/gec3.12444>.

methods of his approach and a further, consequent risk of failing to understand how these features relate to the more radical structure underneath. For example, De Carlo was often called on³¹ or chose³² to write about participation and it clearly is important in his practice. However, participation seems really to be a necessary outcome of the ontology he proposes – it flows from how he chooses to define and build “architecture”, that is, as a spatial practice “involved with everybody ... everyone’s involved with its creation, people can’t do anything but be part of its creation.”³³ More concrete examples will help to show why this is so.

I turn now to De Carlo’s recurring (and particularly tight) definition of architecture: “Architecture is – and can’t be anything but – the organization and form of physical space.”³⁴ I have commented on this definition in relation to people elsewhere and so point the reader there³⁵ for further detail. The key point for this paper and the significance for education is that *organization* must be seen as continuous with the life of the building and an activity associated with *all* who inhabit and use it. Organizing space cannot be the preserve of architects and planners only but, on the contrary, a fundamental and necessary activity of humans in general.

Following Bilò, such an extension to the perimeters of architecture brings consequences and requires examination. One practical consequence is to extend also the boundaries of the category “designer”; the organisers of physical space produce architecture but clearly not all organisers of space are architects. In his *Why/How to Build School Buildings*, De Carlo makes this explicit: “The most important thing is that structure and form leave the greatest space for future evolution, because the real and most important designer of the school should be the collectivity which uses it.”³⁶ Note that De Carlo is not merely expanding the category of “designer”, however, but is doing so in a particular way. He moves the designer-as-single individual to designer-as-collectivity. The fiction of isolated authorship is broken. The economic liberal desire for identifiable and so attributable reward for production is rejected. And yet, this does not need to flatten and package up all forms of spatial organization as the same since different types of organization involve different types of resources and skills.

The above statement is part of an interlocking set of propositions. It follows that if organization and form of physical space (architecture, in De Carlo’s ontology) are to be adaptable either in themselves or in the ways in which spaces might be appropriated and their uses re-invented, then organisation cannot be limited to a moment in or discrete period of time (just as “designer” cannot be

31 Giancarlo De Carlo, “La Progettazione Partecipata” in *Avventure urbane. Progettare la città con gli abitanti*, by Marianella Sclavi, Iolanda Romano, Sergio Guercio, Andrea Pillon, Matteo Robiglio, and Isabelle Toussaint (Milano: Elèuthera, 2002).

32 Giancarlo De Carlo, “An Architecture of Participation,” *Perspecta*, 17 (1980): 74–79. <https://doi.org/10.2307/1567006>.

33 De Carlo and Bunčuga, *Conversazioni su Architettura e Libertà*, 252.

34 Ibid., 125.

35 Adam Wood, “A Useful Definition of Architecture,” *Architecture and Education* (27 November 2018). <https://architectureandeducation.org/2018/11/27/a-useful-definition-of-architecture/>.

36 De Carlo, *Why/How to Build School Buildings*, 32.

limited to an individual, official architect.) And if organisation is ongoing, then the boundaries of “project” also require an extension. In his 1978 lecture to the Royal Institution in London, this is exactly what De Carlo does. In the written version, scare quotes around the term further help to indicate the critical distance he was keen to gain: “it is assumed that the ‘project’ concerns only a specific moment corresponding to a few intermediate states [of the overall building programme. However,] even the moment of use is ‘project’, because it involves changes suggested by critical evaluation.”³⁷

I now explore the above points in relation to education more directly.

4. Discussion

In discussing the shift in philosophy around the time of Socrates, Foucault introduces us to his concept of problematization, a new orientation towards exploring not whether a particular concept works in its own terms, but the conditions in which those terms come to appear as proper to the concept under examination. He uses the example of truth and how, towards the end of the 5th century BCE, new questions about truth came to be asked. These questions focused not solely on whether a given statement x was true or not but on “truth-telling as an activity – who is able to tell the truth, about what, with what consequences, and with what relation to power...”.³⁸ The ontology De Carlo offers is, I suggest, a similar kind of problematization, in this case of architecture. Specifically, it provides a questioning of the boundaries regarding who is able to produce architecture, when architecture is produced (indeed, questioning if a ‘project’ can be finished), and particularly the relationship between architecture and power. These are concerns fundamental to education too and so how these questions overlap to challenge our thinking about and practices in educational spaces is worth a little investigation.

4.1 Centring students and teachers

Once the architectural project has exploded beyond the remit and temporal control of the architect, students and teachers inevitably ‘return’ to a central position in what counts as architecture. This self-organization of space recalls De Carlo’s anarchist interests and concern to limit the ability of some to decide space for others. This has the effect of privileging more immediate social and educational local interests making them more responsive and adaptable in turn. Rather than fix what schools are and make cuts to form boundaries around who has the right to establish such fixes and when, we can perhaps leave such questions as prompts for ongoing engagement.

³⁷ De Carlo, *Reflections on the Present State of Architecture*, 36-7.

³⁸ Michel Foucault, “Conclusion: Discourse & Truth, Problematisation of Parrhesia — Six Lectures given by Michel Foucault at the University of California at Berkeley, Oct-Nov. 1983” *Michel Foucault, Info.* (Accessed 5 January 2019). <https://foucault.info/parrhesia/foucault.DT6.conclusion.en/>.

This is also an attempt to return politics (explicitly) to questions of space and education rather than pretend those spheres can be cleansed either by claiming their neutrality or acting as if they can be excluded from political concerns on the grounds of efficiency and/or effectiveness. Such claims are always attempts at definition and control, always “battles over the power to label space-time, to impose the meaning to be attributed to a space”³⁹ and so always political. Far better to acknowledge that and the contestation involved. Indeed, as De Carlo argues in a comment directly about schools, this is a potential site for creativity:

The work of the architect should be limited to the definition of the supporting framework—which is not neutral but full of tensions—on which should be able to develop the most disparate organizational modes and the formal configurations which stimulate the richest disorder.⁴⁰

This ‘richest disorder’ has educational and social potential as I explore now.

4.2 A variegated approach to schooling, of meeting places and the ‘richest disorder’

When reading De Carlo’s writings about architecture and educational spaces, I am reminded of something the Italian educationalist, Lamberto Borghi, wrote. Borghi, like De Carlo, was keen that education should not be over-institutionalized and so crushed by the weight of its own structures. For both, schools inevitably stand for more than learning (understood in a narrow and individualistic sense) and are open, diverse and (diversity-producing) spaces:

School is not only the meeting place of different students and their different cultures but the instrument by which those differences come to be valued with the aim of creating a richer and more articulated society.⁴¹

The irony of a meeting place is that it is never one place, the same. It has to change, to be open and porous in order for people to meet and exchange. However, just as a nucleus without orbit signals stagnancy for De Carlo, so orbit without nucleus indicates a permanent instability. Social worlds require time and care. The labour involved in maintaining such places and relationships cannot be delegated to architecture but requires real human effort. These tensions are real and part of what prevents the congealing of disorder and articulation into homogeneity. This is true across a range of educational timescales, from specific activities to the project of schooling itself. At this scale, school offers a formal (if changing) meeting place and project that can help to provide the opportunities for what the philosopher Elizabeth Anderson describes as the need for “cultivating the ability to cooperate across ... differences” so

39 Doreen Massey, *Space, Place and Gender* (Minneapolis: University of Minnesota Press, 1994): 5.

40 De Carlo, *Why/How to Build School Buildings*, 32.

41 Lamberto Borghi, *La città e la scuola*, edited by Goffredo Fofi (Milano: Elèuthera, 2000): 182.

that citizens can "both learn to think for themselves and to think together..."⁴² More explicitly and more carefully than in many educational and architectural discussions today, De Carlo indicates how this might happen sensitively but also radically.

4.3 The importance of open, travellable concepts.

We are now in a position to complement De Carlo's ontology with Bal's travelling concepts. If all concepts offer common ground, some offer more than others. De Carlo's extensions to the perimeter of architecture (i.e. pushing the temporal boundaries of project and users as designers) expand what is "common". Involving more people over a greater span of time is one effect of De Carlo's re-working of architecture and one that can make of architecture a potential meeting place in itself. There is now room for people to join the discussion *and the* (shared) linguistic and conceptual resources for them to do so. If concepts can work "as shorthand theories"⁴³ then it matters how we construct them, who we include and exclude. This has always been an issue at the heart of education too and it is with De Carlo's reconfiguration of architecture that we have an acceptably and usefully open place for discussion.

Finally, I note that the elaboration of this concept-shorthand theory-common ground is not intended to be a definitive resting place. It is worked at and worked for, a place that requires change. For Bal, concepts are not "firmly established univocal terms but ... dynamic ... While groping to define, provisionally and partly, what a particular concept may mean, we gain insight into what it can do. It is in the groping that the valuable work lies ... The groping is a collective endeavour".⁴⁴ This way of thinking of concepts coheres with De Carlo's approach to architecture, I believe: tools (for others) to build other tools with; processes that trigger events, problematize or open up, rather than the materialisation of beautiful and/or useful objects.⁴⁵

5. Conclusion

Architects, it seems to me, inhabit an unusual position with regards to concepts, material resources and causality. The particular concepts they wield have a greater potential than most people's to bear causally on the world, to move from the discursive to the concrete, the conceptual to the physical, and the imagined to the real. Of course, this is never a determining power since the real is only ever a ground for new iterations of the imagined. Nonetheless, the question, "how to wield power?" is key. De Carlo shows that to consider that question

42 Elizabeth Anderson and John White, "Elizabeth Anderson Interviewed by John White," *Journal of Philosophy of Education* 53, no. 1 (2019): 14. <https://doi.org/10.1111/1467-9752.12336>.

43 Bal, "Working with Concepts," 19.

44 Ibid., 17.

45 De Carlo and Bunčuga, *Conversazioni su Architettura e Libertà*, 108, 134-5.

honestly and genuinely, what is necessary is not fundamentally the adoption of new methods or processes but ways of thinking what architecture is and who it might include. For people to have the capability to engage with architectural questions, they need both the image of an inclusive concept and the resources to adopt that concept as their own. De Carlo creates that space through a particularly open form of common language.

Our thinking about educational spaces should learn from this approach. Schools and schooling are “project” in De Carlo’s ontology, - ongoing organization - requiring reinvention if they are to reflect to those who inhabit them the collective sign of their achievement and both the right and means to take part in new re-organizations.

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