ECONOMIES OF SCHOOL-BUILDING: THE SELLING OF ARCHITECTURAL AND EDUCATIONAL FUTURES

Abstract

To access more capital, more quickly, governments seek new sources of finance to fund school-building including loans and Public Private Partnerships. The paper uses examples principally from England and Italy to argue that architecture is now central in this process through its selling of reductive, human resource-based educational futures. By colonizing imaginaries of tomorrow, school design therefore helps to secure the legitimacy of new financial demands, creating a virtuous circle (at least for financial purposes). However, with education moved beyond current experience, the present and the space it offers for contestation is deleted and only architectural-educational futures already part-defined by a technical élite are offered in its place. New forms and extents of financial and architectural tie-in energise the rate at which people can be excluded from the production of their own futures.

Keywords
School Architecture; School Construction; Educational Futures; Neoliberalism.

1. Introduction

Governments' desires to stand out as bold investors in innovative futures (and remembered as such) have exacerbated genuine needs for investment in school buildings and fuelled demands to bring forward capital from the future. Consequently, public investment in schools is often routed through Public Private Partnerships (PPPs) such as Private Finance Initiatives (PFIs) as in England or specially negotiated loans in Italy (European Investment Bank, 2016:online). In this way, imagined educational futures can be financed now and so imported into the present: we get tomorrow's schools today albeit without the opportunity for public discussion of what and who today involves. The present (and its inhabitants) are effectively deleted.

This paper argues that the mortgaging of school construction and new financing structures give oxygen to the development of fantasy worlds of 21st century learning which tend to interpret students as future resources of human capital. As a consequence, the architectural imaginations materialised in new schools tend towards technicist fetishizations encouraging education to be reframed from a public good into a commodity of learning that can be bought on credit in return for expected gains in learning and,

especially in England, healthy leasing payments to the construction-cum-finance industry.

The overall aim of the paper is to explore how financing and edu-architectural design interact, are managed in both economic and discursive terms and go on to affect how education and the users of school buildings come to be seen. England is the principal focus. However, I also bring the initial findings of current research on school-building in Italy into the discussion in order to sound a cautionary note since some developments there appear to mirror mechanisms in England that relied on and reproduced particularly dramatic visions of architectural and educational futures. Indeed, new funds for school-building (whether deriving from PFI or from European loans) are more international than traditional monies leveraged through national taxation or deficit financing. Reciprocally, the visions of education and architecture that are promoted derive increasingly from actors beyond any given nation-state (the OECD being just one example) and so I also point to similar processes elsewhere to indicate how the English and Italian cases are part of broader trends.

In Section 2 I show how education is shifting towards learning where learning is simultaneously framed in human capital terms, and quantified and *understood* as quantifiable. This first step allows me to relate an economy of learning to the changing nature of funding of school construction and the effects of that, in the main body of the paper, Section 3. In the conclusion, Section 4, I argue that the ways in which we are encouraged to conceive of schools and architecture are not inevitable and suggest some alternatives.

2. Entwining Economies of Learning and School-Building

Education is increasingly framed as (and reduced to) those processes which can lead to quantifiable outputs of *learning*. This re-framing is supported by the work of supranational organisations such as the Organisation for Economic Co-operation and Development (OECD) whose messaging and policy tools, Sotiria Grek argues, connect 'learning directly to labor market outcomes and human capital' (2014:274). In Italy, education has been hailed as the 'only true weapon to remain afloat in the markets. Today it is impossible to not recognise that this is the ingredient most correlated to growth' (De Carli, 2017:online). Such functional logic reappears in the justifications for the European Investment Bank's loan of Euro 1 Billion for financing Italian school-building and improvements where the objective is: 'Improving the learning environment for students and working conditions for teachers reinforces the formation of human capital.' (2015:online). General, international trends in education and finance therefore become instantiated locally through the provision of rationales for (and the resulting, concrete instances of) new or improved schools.

In parallel, measurement and evaluation have become tools of educational control. The head of the OECD's PISA (Programme for International Student Assessment) notes in an interview that, 'If we want to bring it on the radar screen, we need to measure it' (Anderson, 2016:online). Such beliefs, put into action by powerful, well-resourced players, help to reframe both what is educationally important and what education *is*, a

process supported by changes in the framing of educational concepts where new vocabularies represent 'a particular technologization or instrumentalization of education' (Friesen, 2013:21). For example, this process is reflected linguistically and spatially in the tendency to replace *classrooms* (spaces named after the social group possessing or being formed by them) with *learning spaces* (a prescriptive, functional, de-socialized label of hoped-for activity), a trend paralleled in Italian[1] and other languages too. This is a process that Gert Biesta, with a 'deliberately ugly phrase', names 'learnification': the 'translation of everything there is to say about education in terms of learning and learners' (2009:38).

In some respects, these *learnified* forms of education and financialized motives for school-building are not new: they mark a process that Lyotard identified as speeding up from the 1950s onwards:

> It [knowledge] can fit into the new channels, and become operational, only if learning is translated into quantities of information … Knowledge is and will be produced in order to be sold, it is and will be consumed in order to be valorized in a new production: in both cases, the goal is exchange. (1984:4)

What is new are the means for achieving it. Stephen Ball argues that in England, private entities are forming an 'education services industry' (2007:39) and have developed to the extent that:

> The private sector is now embedded in the heart and sinews of state education services at all levels, intertwined in the day-to-day business of decision-making, infrastructural development, capacity building and services delivery (ibid:41).

Actors in the education services industry invest in the discursive representation of themselves as saleable and consumable *things* and this now includes the sale of architecture as the value-added learning experience – a role we can see in the launch of the #GREATSCHOOLS thinktank in *The Architects' Journal*:

> As schools behave more like private businesses they will be in competition with one another to attract the best teachers and students. Architects can draw on their experience in the private sector to help them achieve this (2015:online).

Financial and political economies contribute to turning the public goods of education over to private hands and architecture's role in this process is to effectively materialise and marketize education-as-product (on one hand) and diffuse images that represent the design of space as a site of comparative advantage in the educational marketplace on the other. The following section discusses new forms of financing and particularly their integration into political economy, their influence on architecture and ultimately their

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[1] See, for example, the recent Istituto Nazionale di Documentazione, Innovazione e Ricerca Educativa (Indire, part of the Ministry of Education) publication *Dall'Aula all'Ambiente di Apprendimento* (2017) [From Classroom to Learning Environment]. Note also that this shift 'Da … a…' ('From … to…') is simultaneously temporal, spatial and discursive, entwining conceptual change to time and space as *progression* and education and design as always-forward-moving phenomena in the service of functional return. I return to this still-undead modernism in Section 3.3.

role in positioning an imagined 'user' in the future, beyond the awkward realities of the present.

3. The Return and Financialized Reinforcement of Future-Reaching

Building new schools and diffusing knowledge about them support both education directly and the propagation of its political and economic imaginary. The perceived urgency of these activities, the crises that would result from *not* taking educational and school-building action, and an orientation towards an inevitably better future that could be constructed are ideas with long histories, gaining ground throughout the 19th century (see Burke and Grosvenor, 2008:26ff and Katz, 1987:16ff). The early 20th century was the high-water mark for these ideas, the point when society 'became an object that the state might manage and transform with a view toward perfecting it' (Scott, 1998:92). Since then, educational and architectural alternatives have been (briefly) allowed and even encouraged in some countries. Arnulf Lüchinger, for example, thought Hertzberger and others labelled as Dutch structuralists interesting precisely because they offered a counterpoint to the '"reaching into the future" mentality' (1981:15).

It is in this context that the following section explores a financialized return to and reinforcement of what I will call, after Lüchinger, 'future-reaching' in a compact between architecture and education, and its consequences. New financial instruments of school-building and architecture such as Private Finance Initiatives (hereafter PFI) and new kinds of loans make future-reaching not only possible once more but a moral imperative that has serious epistemological implications because of the way in which it deletes the very people it attempts to project forward. Hence, I explore how the availability of new financial instruments also has a feedback effect: funds imported from the future feed back into the production of what the economic sociologist Jens Beckert calls 'fictional expectations'. These are 'the images actors form as they consider future states of the world, the way they visualize causal relations, and the ways they perceive their actions influencing outcomes' (2016:9). The imaginaries that actors develop and (to some extent) share are integral to capitalism since the 'contingency of expectations is also a source of *innovation* in the economy, giving rise to new ideas *despite* – or, even better, *because of* – uncertainty' (original emphases, ibid:10). This helps to understand the promulgation of *certain* architectural and educational futures (often made by more powerful agents) and how they relate to the economy because the control and diffusion of imaginaries by a technical élite (though control of particular funding mechanisms and school-building policy) can exclude others and their imaginaries: a way to colonize the future through the promotion of partial and ahistoric visions of it.

3.1 New financial and discursive instruments of school-building

Probably the best known of these new financial tools is PFI although Italy, for example, has negotiated special loans from the European Investment Bank allowing it to borrow outside of limits on its (very high) public debt (2016:online). Whether via PFI or specially negotiated loans, what legitimates these demands for more money (and that in turn feeds

back to consolidate attention on the future) is the orientation towards the fictional expectations of particular imagined futures that Beckert discusses.

PFI has become a key financial instrument used to fund school-building in England but also in Scotland and New Zealand. It is a form of public-private partnership, in essence a mortgage taken out by the state with a private lender (and constructor) who provides capital up front to build a school and then receives that capital back over the course of 25-30 years, with interest. Providing liquidity is in the interests therefore of the government who gets a school (and recognition) more quickly than if only current spending budgets were available.

But PFI is also convenient for the lender-constructor: their own mobilisation of capital enables them to build (or at least outsource building) and so be economically active. Their income flow is now smoother with respect to traditional contracts and – key for their operation as financial vehicles – more predictable and (in theory, if well-managed) more reliable too, making them attractive to investors in the pension markets (BBC, 2016:online). Further income results from schools being tied into maintenance contracts with the same lender-constructor. Such relationships can be problematic for schools with some in England closing because of their inability to meet PFI payments (Dickens, 2017:online). In a further twist to the financialization of education and school-building, many PFI projects in Scotland were managed by offshore companies (ibid) indicating a leakage of monies outside of the system that will be responsible for servicing repayment.

Exploring the use of PFI provides an insight into an accelerated hunger to have tomorrow, today, part of 'a policy that seems to enjoin us to "live now, pay later", a principle that … underpins BSF [England's Building Schools for the Future programme]' (Mahony et al., 2011:343). More broadly, the logic of wanting tomorrow, today fits with a mechanistic approach to school-building:

> In Britain's [sic] now deceased Building Schools for the Future programme, the idea of a school was a function not of any philosophy of education but of supply chain efficiencies as administered by global contractors: the mechanism of building a school was the focus (Jacob, 2015:online).

The public investment enabled by PFI (or indeed loans in the case of Italian school-building) could be seen as fairly standard Keynesian policy. This may well be a mistake, however. Parker and Cahill's analysis of Australia's Building the Education Revolution (hereafter BER) shows how it

> …relied upon archetypal neoliberal policy tools of outsourcing to the private sector, and in the most populous states of Victoria and NSW the BER was used to pioneer new levels of private sector involvement in public works (2017:263).

Moreover, such moves of financing new forms of governance and public service delivery risk encouraging reliance on the private sector since such 'innovative' forms of crisis-management result from *and* contribute further to 'a degree of path dependence and institutional lock-in of neoliberalism' (ibid:266). Clearly, a degree of cautiousness in generalising from the Australian experience would be wise. And yet, a statement on England's BSF from The House of Commons Education and Skills Committee noted that

at the beginning of the programme, there were 'very few architects, procurement experts or Principals in the system with experience to build on' (2007:12). The scale and novelty of BSF also indicates the extent to which neoliberal economic policies can gain ground through the *apparently* state-led focus on school-building: the path dependence mentioned above illustrates how reliance on consultants increases as state resources are depleted and knowledge becomes privatised. In architectural terms this pattern holds as well, with only Hampshire remaining as a significant county-level designer of schools in England. This is part of a broader trend: 'In 1976, 49 per cent of all architects in the UK worked for the public sector. Today it is 0.9 per cent, and only 0.2 per cent in London' (Williams, 2017:55).

England's enormous BSF programme was cancelled in 2010. However, a reading based on the concepts of path dependence and institutional lock-in would question whether – in governance terms at least – the cancellation was really the abrupt break it seemed to signal. The attention-grabbing curse of architectural excess by the then Secretary of State for Education, Michael Gove, took the headlines with his populist-appealing 'no-one in this room is here to make architects richer' (Fulcher, 2011:online). An effective straw man, the noise generated helped to hide the continuities of a quickening transition to a financialised private-sector management of public assets and policy instruments including school-building. BSF was killed but vast school-building contractors-cum-outsourcing agencies such as Carillion lived on (at least as long as future expectations of income could offset current expenditure). In the end, Carillion died too along with many of the contractors it owed money indicating the fragility of futures built on credit in environments where the combination of poor management, squeezed margins and government-offloaded risk made for unsustainably weak cash flows. The Secretary of State killed one conception of the future, putting at risk the discursive foundations of the project as a whole since '[f]rom the investor's perspective, the value of investing in an innovative activity depends entirely on the perceived credibility of the envisioned future present' (Beckert, 2016:186).

PFI is only the most exaggerated form of this enhanced capability to import capital from the future. Italy, for example, has loans from the European Investment Bank and grants from private and religious institutions to fund school-building and the discursive construction of employment-linked, innovative schooling. The former signals the produced unavailability of funds in the present – Italy's public debt is the highest in the EU after Greece (Eurostat, 2016:online).

3.2 Demanding the Future Now and Consequences

Where educational financing *for* the future is now seen by governments less as a moral or social commitment and instead as an investment in human resources, education and school-building become predicated on returns being devolved *in* the future. Attention easily shifts away from the present to a deferred and depopulated, distant time. In England, BSF was part of a broader pattern, a performative step over the present and into the future where its academy schools:

> literally stand for and represent, in their buildings and infrastructure, new, bold and different thinking – more of the dynamic rhetoric of New Labour ... As texts

the Academy buildings are enactments of a new 'imaginary' economy (Ball, 2007:172).

These imaginaries and fictional expectations should not be discarded as insignificant word play. Beckert's point is that such visions of the future can come to be causally efficacious, to 'have real consequences because dominant discourses affect the distribution of resources' (2016:185). But further, they also affect the *mode* in which resources are distributed. Hence, in addition to making finance available from the future, more radical means of achieving buildings are stimulated through the encouragement to move harder, faster and more thoroughly into the future:

> BSF investment … is about step change, innovation, stretch goals, challenging orthodoxies, and will potentially involve radical shifts from current practice (Partnerships for Schools, 2009:5).

A consequence of this sleight of temporal organisation and shift in values from the moral and social to the financial is the obscuring of the user through the financial instruments adopted. This happens in two ways. First, design-wise because 'the machinery of PFI meant that teachers and governors had limited contact with the people designing their buildings' (Moore, 2012:229; see also CABE, 2007:44). Second, in terms of learning about buildings in use since, as Leaman, Stevenson, and Bordass (2010, 576) argue Post-Occupancy Evaluation is made harder through PFI: knowledge is effectively privatised within the various fragments of the procurement chain where it is either silo-ed or becomes withheld as part of a firm's comparative advantage. Either way, the end result is that knowledge about buildings and their users is made more difficult to access, is shared less and so is increasingly denied to future designers who might seek to shape new schools using the results of empirical enquiry and (to the extent it is possible) the interests, values and experiences of users, even of other buildings.

However, 'step change', 'challenging orthodoxies' and 'radical shifts' are also dangerous for education itself – especially when the people who are subjected to those changes are excluded from decisions about how it happens. Further, as bell hooks writes of education, being radical can mean needing to avoid precisely the kind of step change that future-reaching encourages since 'our visions for tomorrow are most vital when they emerge from the concrete circumstances of change we are experiencing right now' (2003:12). The *now* is a space of real people available to consider their immediate and future needs in terms that accord with their own values yet school-building in both style and form has recently tended to overreach this present in search of more fertile (financially) but also less accountable futures.

So far, this paper has focused mostly on England yet these discourses are international and internationalizing. The OECD has been one of the players helping to nudge countries towards a future focus via the mechanism of 'mutual surveillance' (OECD, n.d.:online) and publishing documents such as *21st Century Learning Environments*. Here the OECD invites countries to shift their focus not simply on to but *in*to the future: 'How can design transform existing facilities to achieve future educational goals?' (OECD, 2006:11). Not current goals but *future* ones are what counts. Here, a further deferral of interest and knowledge production takes place in a more uncertain time and space, reinforced by the reciprocal surveillance posed in questions such as 'Are governments investing in new

educational facilities for the 21st century?' (ibid). Hence, as well as distancing users from design, a too strong focus on the future risks an additional epistemological disjuncture. Not only are future users unavailable for comment or participation, their space of imagination and possibility is at one more remove.

This problem has been explored in depth by Doreen Massey whose work has focussed on concepts of space including their implications for how we think about time. In much of the discourse of school-building programmes and their financial stimuli there lies the still-undead sense of modernist progress, a vision that the future can be written now with enough forethought (and money). Space – seen as the enclosure of people rather than the result of their activities and social lives – is aligned to a temporal plan, one that simply needs to be unfurled by the technicists best positioned to elaborate it:

> In these conceptions of singular progress (of whatever hue), temporality itself is not really open. The future is already foretold; inscribed into the story (Massey, 2005:68).

If the story is already part-written, then the space for people to choose, make and control their own futures is limited.

There is, then, a constellation of interests that positions ideas of school design in the ever-distant future. It is, simultaneously, epistemological, financial, spatial, aesthetic, involving professionals and their educational and architectural imaginaries, national governments and supra-national bodies all celebrating what and who we do not have at the expense of what and who we do. The editorial director of both *The Architectural Review* and *The Architects' Journal*, Paul Finch, says boldly and approvingly that 'All architecture is about the future' (2015:online). But there's the rub. People in schools will have to live in a present that is partly shaped by other parties' thinking of the future and their relatively greater power at materialising it. Schools and school systems are forever pushed forwards in part by 'the role of fear, and particularly the fear of being behind and the fear of being left behind' (Biesta, 2015:351). And, in a parallel to bell hooks' comments on education practice, cited above, Keri Facer has critiqued the production of knowledge and discourse within education *research*, it too being responsible for generating future-reaching visions: 'education research needs to … find ways to mobilise *the present* as a resource of powerful contingency and possibility' (original emphasis, 2013:142). This is therefore a genuinely self-reinforcing constellation of fields crossing education, architecture, finance and supporting the logic of selling partly-made futures.

The mission to move the attentions of educational research and practice to the present could be helped by a humbler, less heroic approach to school-building. Instead of attempting to make itself commercially useful by invoking desires unlikely to be realisable by their users, architecture could support the work of teachers and students in the presents they want to make now where the 'challenge [of building good schools] is simplified by giving up the attempt to predict the future' (Woolner et al., 2005:38). However, such a move would require that the drivers encouraging edu-architectural future-reaching be neutralised. The following section identifies some of these and their tendencies to colonize futures that might otherwise be more open in the present.

3.3 Rejecting the Past, and Crisis as a Stimulus for Future-Reaching

Much contemporary discussion of education and school architecture dismisses the past as a discontinuous, burdensome collection of redundant experiences. In this logic, the past is not a resource but a weight dragging the capacities of human resource development backwards. In form, this appears similar to the high modernism of a century ago which James C. Scott critiqued for its treatment of the past as 'an impediment, a history that must be transcended' (1998:95). More structurally, however, this new future-reaching is different: the state has off-loaded risk and the production of new futures onto private bodies or supra-national organisations such as the OECD have moved in to claim and sell their own visions.

The past is therefore still valuable but only because it serves as a usefully dysfunctional *other* against which innovation and 'radical shifts from current practice' can be offered as solutions. The substantial content of the past is evacuated. As one educator working on the Citizen School Project in Porto Alegre, Brazil noted at a recent conference on educational futures, 'Neoliberalism obliterates the past' (Gandin, 2017). This obliteration carries risks. Mary and David Medd, for example, whose work on schools in a Department of Education in-house team where action research enabled both 'continuity of experience and economies of scale' (Franklin et al, 2012:397) pointed out the potential effects in an as yet unpublished collection of notes on school design revisiting their educational aims through architecture. These were:

> ...to design not for an unidentified future, but for the present. Designing for the present doesn't mean designing for yesterday, but for what percipient people can now identify as the growing points – i.e. the way forward – this is evolution ... This is nothing to do with designing for the Future ... Designing for the unknown means designing for nothing (2009:43).

However, such are the political and financial gains from reaching into the future to finance solutions that seem to deal with the present's perceived problems, that school-building moves forward by narrating its own historiography, dragging architecture with it. So, in their *Consultation on a new approach to capital investment*, the Department for Education and Skills wrote that 'The extra money now available [through PFI] presents a historic opportunity' (2003:4). These new schools were not, in a sense, for today's students but for imagined future ones, and designed with a proper 'visible inheritance' (ibid) that only architecture *and* private finance could achieve: the state was no longer *enough*.

The promotion of an urgent need to move to the future by turning away from the past confirms the existence of a crisis, with both material and discursive foundations. In Italy, for example, the inadequacy of many schools' resistance to earthquakes is cause for genuine concern. But such inadequacy is always the result of political choices, of decisions not to have invested previously, to have spent money elsewhere and to continue to do so. One outcome is what has been called an 'emergenza scuola' because of the 'degradation deriving from years of immobile resources' (Gallo, 2011:XVIII) and a 'vacuum in terms of political, administrative and financial planning' (ibid:XX). Much of the discursive messaging of BSF and this Italian example evidence the existence of what Dana Cuff calls architecture's 'crisis mentality' (2012:390), where:

a dire state of affairs is variously attributed to the economy, stylistic confusion, a lack of creativity, poor construction, the state of education, and so on. This professional anxiety can serve as a call to action that intellectuals and practitioners produce and listeners grasp. A convincingly significant message of catastrophe demands collective response. The digital revolution, the surveillance city, the World Trade Center site, the Katrina-ravaged Gulf Coast, global warming – each has been variously construed as a crisis that requires architectural remediation ... Disaster scenarios hold the potential for innovation: the old ways have not worked, so new solutions are necessary (ibid).

Hence crises (real, exaggerated or invented) can be shaped discursively to provide backing for particular forms of innovation – architectural, financial and political where the state is seen as being unable to resolve problems and where market-based solutions then appear as both necessary and more natural.

4. Conclusion and Tentative Alternatives

The purpose of this section is to draw together the threads in the above discussion and, in doing so, suggest alternatives.

I have shown that new methods of funding school-building have grown in place of exhausted (or rejected) opportunities for growth in the present. Here, capital – aided by architecture and narratives of educational crisis in the 21st century – has helped to colonize possible futures-in-the-present, deferring the state's obligations, reducing its risk but also distancing users from the present as both objects of knowledge and as subjects with a *range* of presents available to them. Control over which futures are available is therefore rationed since those in possession of discursive tools to manage its production and the political capital to make certain representations more likely can begin to define futures before others have a chance: 'Competition for resources for innovation is to a great extent a power struggle over the credibility of imaginary futures' (Beckert, 2016:184). In turn, these struggles have real effects since they legitimate the provision of resources and the better resourced of these 'can thus prevent or marginalize alternative futures' (Beckert, 2016:185).

However, implicit in the discussion of these problems are the means of their mitigation. Some – such as the direct problems with PFI and its tendency to obscure or privatise knowledge about the interests of the students and teachers using schools – have already been noted. Others – such as the need to focus more on the present – have been referenced through a range of commentators' works. But what would focussing more on the present mean in practice? What else, besides this broad injunction, is possible? Some suggestions follow.

One way forward is to challenge some of the basic premises on which school-building tends to happen. Are national school-building *programmes*, for example, the only means of building schools? They tend to build-in future scarcity of funding by providing capital in waves that is therefore no longer available in increments and/or that needs to be

repaid with interest – a solution that prefigures the next crisis. They seem to reinforce centralised political control and are sometimes called on to serve purposes that are distracting from education and community-building. Instead, if funding were 'smoother' and devolved directly to smaller political units below the nation-state level (as they once were, in England and Italy), enabling buildings to be extended as and when local needs determined, there may be more room for the present and the people who inhabit this time. One small-scale illustration of this can be seen in Berlin. Here, the Bonus-Programm grants schools which have 50% or more of their students from low-income families extra funds to spend on school improvement in ways that they see fit. Once architecture practice, Bauereignis Sütterlin Wagner, works with these schools (and directly with the students) to improve the buildings, spaces and sometimes the external grounds. The school community's relative autonomy is interesting here from both an architectural and educational perspective but perhaps more importantly, in terms of the above discussion, the funding helps to retain spatial and educational imaginations in the present and closer to the teachers and students who use the spaces, a small but significant recognition of the fact that 'the real and most important designer of the school should be the collectivity which uses it' (De Carlo, 1969:32).

Figure 1: Students of the Carl-Kraemer-Grundschule, Berlin at work transforming their classroom. Photo: ©Bauereignis

Figure 2: their finished classroom. Photo: ©Bauereignis

The above example is a modest and local one but perhaps this is how and where discussion of any possible architectural assistance in supporting educational change should happen. If we accept that 'in democratic societies there should be an ongoing discussion about the purposes of education' (Biesta, 2009:39) then there is a need for large and small-scale discussion with local needs and actual rather than abstracted people taking part in conversations about the range of educational futures that might be kept open. Because of their continuing role in designing the buildings where students spend so much time, this discussion should involve architects too. This means asking existential questions before queries about style, method or efficiency as Giancarlo De Carlo indicated:

> we cannot deal with problems of 'how to' without first posing the problems of 'why'. If we were to begin discussing immediately the best way to build school buildings for contemporary society without first clarifying the reasons for which

contemporary society needs school buildings, we would run the risk of taking for granted definitions and judgements which may not make sense any more; and our speculations would turn out to be sandcastles. (1969:12)

Finally, therefore, it would pay to recognise that imagined futures do not need to be exclusionary. As well as beginning with including students, teachers and others who work in schools, we (and I write as an educationalist) would do well to resist the continued exclusion of architects from discussions about educational futures, how they are funded and they might be realized spatially. Debates about efficiency gains in education in the future are likely to continue emphasizing the role of online learning. With this, the importance of engaging more deeply with questions of place and opportunities for being physically located with others suggests experts in educational *and* spatial organization are needed now.

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