## AESTHETIC EDUCATION AND DESIGN

## ROGER SCRUTON

In his celebrated letters on the Aesthetic Education of Mankind, Schiller argued that to achieve the sense of order and civic virtue our best recourse in the modern world is aesthetic education. Kant had marked out a central place for aesthetic pleasure in the life of the rational being, arguing that the judgment of beauty is both disinterested and universal in its scope. In aesthetic judgment, Kant wrote, we are 'suitors for agreement', and it is a small step from that idea to Schiller's view that the pursuit of beauty is a shared enterprise, with civic virtue as its goal. In aesthetic judgment we view our surroundings as ends in themselves, abstracting from the demands of utility and function. Hence aesthetic interest looks for permanent values, rather than transitory functions. It is the one sure guide to getting things right, not just for the here and now of our current interests, but permanently, and for the community as a whole. My aim in this paper is to outline a form of architectural education in which pattern, composition, and the idea of fit are given a proper place, and in which function and utility are regarded as the consequences of beauty and not prior requirements that must be independently fulfilled.

Schiller believed that education and high culture would release what is best in us, and bring about civic virtue without any particular person taking charge of the process. Subsequent history has dented any confidence that we might have had in such a vision. Indeed, the experience of the 20th century suggests that the greatest changes come about as a result of particular people and their

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**C** SCHILLER ARGUED THAT TO ACHIEVE THE SENSE OF ORDER AND CIVIC VIRTUE OUR BEST RECOURSE IN THE MODERN WORLD IS AESTHETIC EDUCATION.**? ?**  influence, and that the most influential people-the ones who have done most to create the world in which we now live-have been mad.

This is certainly true in the realm of politics, which was irreversibly changed by Lenin, Stalin, Hitler, Mao Ze Dong, and a host of lesser lunatics. The interesting thing about those madmen is their astonishing ability to recruit a following, to march into the future like the Pied Piper of Hamelin, with an ever-growing crocodile of mesmerised imbeciles following them to destruction. The madness exemplified by the 'great leaders' exhibits their shared desire for a total solution, a transition to a new state in which everything has been solved and nothing is left for discussion. But this total solution is the answer to no coherent problem. Of course you can invent a problem: the Jews, the bourgeoisie, the 'enemy within' or (in the case of ISIS today) the apostate or the infidel. But it is clear to the most casual outside observer that the problem is dictated by the solution, and not the other way round. It is the desire for the total reorganisation of everything, the total destruction of all obstacles and the total transfer of power to me, the Leader, that requires the invention of a problem that can be solved in no other way. For this reason the most frequent tale told by modern politics is the tale of an enemy within, whose destruction will open the way to a new order of being. It was thus that the 'bourgeoisie' was invented, to play such a remarkable role in the theories of Marx, Sartre, Foucault and the Frankfurt school.

This feature of modern politics is replicated by modern architecture. Here too the most influential people have been mad, expressing their desire for total control in manifestoes and projects that involve destroying whole settlements and cities. Like the pioneers of totalitarian politics, Corbusier, Gropius, Lubetkin and their kind wanted a total solution, and they hunted the world for the problem that would justify their aim.

Thus Le Corbusier's total solution for the problem of Paris north of the Seine involved wiping away the great city of stone and replacing it with an array of concrete towers rimmed by grass verges. As comprehensive a solution as could be imagined. But what was the problem? Le Corbusier made a few fashionable noises about health, and the conditions of the working class. However, they were improvised around the solution, rather than discovered from the facts. The Council of Paris put a stop to this nonsense, causing Le Corbusier to turn his attention to the far more vulnerable city of Algiers, where his plans to wipe this excrescence from the map were stopped only by the collapse of the Vichy government, which he had persuaded to adopt him as its architectural advisor.

Unfortunately the City Council of Paris has no power to match that of a President, and when President Pompidou, whose wife prided herself on her advanced aesthetic taste, wished to create a monument to himself, a small-scale version of Le Corbusier's vandalism was carried out, resulting in the clearance of beautiful residential streets in the lovely Lutetian limestone, and their replacement by a vast fun palace of scaffolding in playground colours, designed by Richard Rogers and Renzo Piano. This, the Centre Beaubourg, is perhaps the greatest evesore in Europe, if only because it is conceived entirely as an insult to its surroundings. It is expressly designed not to fit in, and this has been the pattern followed by Richard Rogers in all subsequent buildings: to create something that stands out from the urban fabric, as though dropped from another planet. But 'fitting in' is the primary goal of aesthetic judgment, and it is why Schiller connected aesthetic education to his ideal of civic order.

I will return to that point, since it seems to me that the art of fitting things together-both internally, within the work you are composing, and externally, within the fabric of a human settlement-is of the essence of aesthetic education in all its forms. And it points us in a certain direction-towards a kind of grammar, repeatability, and the relation of part to part. Before exploring that suggestion, however, I want to dwell for a moment on the question of madness.

We should make a distinction, I believe, between those conditions, like schizophrenia and bi-polar disorder, which stem from a dysfunction of the central nervous system, and those conditions in which perception, cognition and affective states are all normal and functional, but devoted entirely to some goal that cannot be moderated or renounced, and which is immune to rational argument–by which I mean argument that weighs with all of

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us. It is this second condition that I have in mind, when describing the madness of Stalin, Mao or Le Corbusier: a kind of inability to give weight to any consideration that does not originate in the over-mastering Idea. The mad person is the one in the grip of a vision, who cannot recognize the legitimacy of opposition or adapt his projects to the needs of others. He recognizes no boundaries, and regards reality as a plastic material to be shaped according to his aims. His thought is uni-directional, and he cries ever 'Forward!' in the face of obstacles.

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Aesthetic education, as I see it, is one part of the broader practice of humane education-the kind of education that transmits knowledge of the human world. Its purpose is to teach students how to renounce their obsessions, and to learn the ways of sympathy and compromise. It fosters cooperation with one's kind. Its goal is to transmit a culture that embodies shared conceptions of life and discovered solutions to life's problems, including the principal problem, which is how to live at peace with one's neighbours and competitors, even when you dislike them. Art, music and literature are all part of this culture, embodying pictures, stories and dramas that raise the human condition to a dignity that sets an example in our daily lives. To transmit such a culture involves teaching students to exercise taste, to compare and contrast, to distinguish refined from crude perceptions, and in general to understand the distinction between products that accommodate our shared humanity and products that are to be understood merely as whimsy or self-centred display. The goal is to enhance our dignity, our sympathy and our understanding for our kind. However difficult it might be to express this goal in words, it is straightforwardly manifested in the art, literature and music that we have inherited, and apparent to everyone who has learned how to enjoy those things. And it is manifest too in our everyday judgments about our surroundings and about the behaviour, manners and appearance of our fellows.

In everything human we distinguish the harmonious from the dissonant, the thing that fits from the thing that jars. And even if there is a place for the dissonant and the jarring in the scheme of things, we know that they make sense for us only because of the context in which they are resolved. Aesthetic education teaches us how to avoid or resolve them, as we teach children to avoid garish colours, rude language and slovenly gestures.

Any philosophical account of aesthetic judgment must explore its roots in the moral life, and in those aspects of the human condition that lead us to search not only for shared rules of behaviour, but for a shared

canon of taste. Errors of taste and self-advertising defiance of aesthetic norms can be just as offensive as rudeness or public belligerence, and we strive to avoid them not simply for our own pleasure's sake, but for the sake of the community. If this is evident in no other sphere, it is surely evident in the sphere of architecture. From Ruskin's Seven Lamps of Architecture onwards the question of how our buildings and our cities should look has been treated as a moral question, and one on which much more depends than we are in the habit of supposing. Writers have been conscious that faulty aesthetic choices lead to destroyed communities, and this is often announced in the very titles of their books-for example Jane Jacobs's The Death and Life of Great American Cities (1961), and Alexander Mitscherlich's Die Unwirtlichkeit unserer Städte: Anstiftung zum Unfrieden (1965). Both those writers saw themselves as fighting a war on behalf of common sense against madness-no longer, perhaps, the madness of a single person, like the madness of Gropius and Le Corbusier, but a madness that had become programmed into the planning system, dictating outcomes that would leave no room for negotiation. And if you look at the situation against which Jacobs and Mitscherlich were both in rebellion, you will see that it is one from which humane education-the only known antidote to madness of this kind-had been abolished.

A kind of depersonalised madness had possessed the schools of architecture and town planning in the wake of the Second World War, with Le Corbusier and Gropius constantly invoked as heroes, and the curriculum purified of all reference to aesthetic values other than those that emphasize originality, innovation, progress and the conquest of space. The ground plan was conceived in purely geometrical terms, as was the city plan of which it was a part. The total conception took precedence over the individual building, and each 6 6 A KIND OF DEPERSONALISED MADNESS HAD POSSESSED THE SCHOOLS OF ARCHITECTURE AND TOWN PLANNING IN THE WAKE OF THE SECOND WORLD WAR**2 2**  element was defined by its function. The city itself was disaggregated into zones, with living, shopping, studying and manufacturing each confined to its own separate area, and the resulting blocks of mono-functional buildings assembled side-by-side and without a heart. The result can be seen in new towns like Milton Keynes, in derelict American cities like Detroit, and in the post-war reconstruction of Germany. I think it is right, when witnessing these things, to speak of madness. For here were massive enterprises, producing unwanted and threatening products, but entirely unable to adapt to the desires and opinions of those destined to make use of them.

Consult the textbooks of architecture and town-planning then employed and you will see this immediately-for example in Siegfried Giedion's Space, Time and Architecture (1941), in Pevsner's Pioneers of the Modern Movement (1936), and the madness has been replicated in the many recent manuals devoted to curtain wall construction. (Take a look at the current textbooks: for example Keith Boswell's Exterior Building Enclosures: Design Process and Composition for Innovative Facades, or Alija Aksamija's Sustainable Facades: Design Methods for High Performance Building Envelopes.) Here once again are the total solutions without the problems, the comprehensive plans without the human beings who are supposed to require them. And for the most part the education advanced by the schools of architecture and planning either avoids discussion of aesthetic values, or subdues them with the all-justifying ideas of progress and innovation. The fact that the 'sustainable facades' and 'exterior building enclosures' are to be inserted into the fabric of a living city, in which the aesthetic of the street, the house and the facade has been followed for centuries, is not mentioned. For the madman the 'total solution' involves the destruction of all that is.

In the face of such madness it seems to me that our first duty is to reaffirm the fundamental principles of the moral life. These principles, I maintain, include the following three: that the other is more important than the self, that conflicts are to be resolved by negotiation, and that opposition must be treated with humility. Those principles are of universal application, since they make it possible for people to live at peace, regardless of their individual differences. Their relevance to architecture and planning can be seen at once, when we compare the traditional street with the modern housing estate. The high-rise estate, largely the invention of Gropius, came to dominate housing projects between the wars and subsequently, since it was a perfect expression of the comprehensive plan. It involved tearing down the streets over a large area, making way for large structures standing in open spaces, which could be designed geometrically as ground-plans, and then raised up to the height desired by isometric drawings. No need to worry about fitting part to part, of finding the appropriate window surrounds and doorways, about creating an acceptable façade on a public street: all traditional aesthetic constraints had been abolished. There were to be no more streets, and windows would be distant apertures, many of them hundreds of feet in the air, which had no special relation to the observer outside the building, and with no special relation to the lines and forms of the doors below.

Furthermore, the high-rise estate was the expression in architecture of a new kind of politics the politics of total control, in which large projects, initiated by the state and its favoured experts, were imposed on the rest of us without seeking our consent. Of course this was the outlook that gave such scope to madmen in politics too—and the near impossibility of mounting effective resistance was the same in both cases. History favoured the new, progressive and total solutions, over the random chaos of the old. So we were taught, and so it was believed.

In the end, of course, madmen lose their following, and this is beginning to be true in architecture too. The real question that we confront today is that of restoration: how to return to the genial traditions that endowed our cities with their hearts, and which made them into durable settlements where generations have been at home. Sometimes this has been achieved with the help of a comprehensive plan, as at Bath. But on the whole the fabric of a city, even if it adapts to a plan, has another source than planning. It is the result of cooperation over many years, between people whose goals may not be shared, but who recognize the boundary between public and private space.

The most important feature of the Gropius housing estate, one that is copied by all the modernist schemes from Corbusier to Koolhaas, is the dissolution of the boundary. The street disappears, as does the façade that presses against it. Walls cease to be private faces onto a public realm, and become featureless curtains between undefined areas, hung on invisible frames. Buildings grow upwards indefinitely, with no boundary between the building and the sky. (For that is how we should think of the sky-line, the most precious and vulnerable of the city's many edges.) Doors and windows are no longer ceremonial thresholds, but simply functional apertures, cleaned of their liminal character. And around every building is a blank space, a no-man's land of discarded rubbish and stunted vegetation, from which the towers rise sheer and formless as though washed up by some primordial flood.

Among the factors lending themselves to this result–as Mitscherlich points out–are the forms of social ownership instituted by the German cities. But even where private property is supposedly sacrosanct, as in America and Britain, governments have made use of Eminent Domain (America) or 'compulsory purchase' (Britain) in order to embark on the large scale clearances that the housing estates require. Hand in hand with this kind of presumption has been the revised image of building, the image forced on us by Le Corbusier in *Vers une architecture*, and gleefully endorsed by Libeskind, Foster and Piano today. For such practitioners the architect has no need of aesthetic education since his comprehensive plan issues from an integral artistic idea. He is inspired and led by the same 'genius' that guides the poet, the composer and the painter. Thus is perpetuated the illusion of architecture as a 'fine art' rescued by the demands of genius from the obligations of daily life.

If we are to understand the role of aesthetic education we must recognize, however, that most buildings are the work of ordinary people who strive to accommodate what they do both to the purpose in hand and to the desires and tastes of their neighbours. Genius has no part to play in their decisions, and nothing is more disruptive than the illusion that they possess it. Many of the most agreeable parts of our cities, their centres in particular, depend on an urban fabric knitted from humble and unpretentious façades that show the mark of style only here and there and often in their pre-fabricated parts, such as doors and window frames. The ordinary vernacular street may have little to recommend it to those, like Libeskind and Koolhaas, who prefer to violate its outline rather than to conform to it, but there is no denying that the traditional street illustrates the first principle of aesthetic education, which is the principle of fittingness. The houses in a street must fit side by side along its edge, and in doing so define the boundary between the public and the private. They may be of different heights, and using different materials and different pattern-books. But if each façade is internally coherent, and shares the overall posture of other houses in the street, then each house might fit to its neighbour, and play its own particular part in creating the shared boundary which is the edge of the public realm.

Two observations should be made concerning the relation of fit. The builder who is fitting a house into a street is not looking for the form that fits a particular function. He is fitting a form into its context, regardless of the function. His reasoning is not 'instrumental' reasoning, but an assessment of how things look. Ever since Louis Sullivan's well known adage that 'form follows function' architects have felt free to allow the use of a building to dictate its appearance, to build as though there were no aesthetic constraints, and that their task was simply to find the forms best suited to the end in view. Hence the emergence of the windowless warehouse as an architectural type. However, no ordinary builder, and certainly no person building or arranging something as part of his own habitat, thinks in that way. The aim is always to make things fit together as they should, with the function conceived as a result and not as a premise of the exercise.

In fact there are good utilitarian reasons for not thinking in a utilitarian way. A building that is construed purely as the means to a present purpose will not survive the extinction of that purpose: it will be an un-adaptable feature of the environment, destined for demolition as soon as its function expires. From such buildings no permanent townscape can be constructed, and their ugliness is a vivid symbol of their impracticality, of the fact that there is nothing to be done with them once their present function has gone. This is the principal cause of the dereliction of city centres – namely that they are not centres, but merely the casing **G** IF WE ARE TO UNDERSTAND THE ROLE OF **222** AESTHETIC EDUCATION WE MUST RECOGNIZE, HOWEVER, THAT MOST BUILDINGS ARE THE WORK OF ORDINARY PEOPLE **7 7**  around activities that have ceased. Detroit is an eloquent illustration of this. Much of the city of London is moving in the same direction, and you see, now, a vivid contrast between the functional blocks already marked out for destruction, and the noble buildings constructed according to aesthetic principles which have survived the loss of their original use–like the Royal Exchange building, now a meeting place and restaurant.

This utilitarian argument against utilitarian thinking goes to the heart of our topic, and tells us something about why aesthetic education matters. In a world dominated by instrumental thinking many people imagine that they have made advances in rationality, that they are no longer hampered by irrelevant goals which have no purpose but themselves, that the life of frills and ornaments has at last been left behind. But it is such people who are irrational, since they are denying the kind of reasoning that would enable them to envision the fruition of their projects.

Let me take a simple illustration of this: the electricity transformer station. When transformer stations were first introduced the instinct of our ancestors was to find an architectural casing for them that would fit in to the surroundings, whether urban or rural. This was not a denial of the great benefits brought to us by electricity, but a way of humanizing those benefits, of making them part of a life lived for its own sake and not just for the sake of consumption. Nowadays, under the impact of the instrumentalised worldview, transformer stations are left exposed, hostile, surrounded by barbed wire, outposts of the gulag, whose only meaning is their function. At the heart of Islington, London, stands one of the original transformer stations, built in 1905 and modelled on George Dance's design for Newgate Prison, which had just been demolished. Now, after several changes of use, it is a popular arcade of shops and restaurants. Here is a building designed for a use, but designed also as an end in itself, and therefore as something that can form the hub of social sentiments in the place where it stands. As a result it has survived the loss of its original use, and been incorporated into the enduring fabric of the city.

I don't say that the Islington Transformer Station is a masterpiece: on the contrary, its not being a masterpiece is one reason why it is so much liked. This is not a building designed to stand out, but one designed to fit in. No genius took charge of creating it, or conceived it as the expression of his individual soul. It is the work of the London County Council's design department, which at the time was composed of unassuming people who had received an aesthetic education of a broadly classical kind, based in drawing, proportion and the Orders-people who took delight in

the appearance of buildings, and in the way that buildings are composed from matching parts. And it has lasted, because it is more valuable than its original function.

One very obvious feature of the Islington

transformer station is that it has firm boundaries indeed, it consists of boundaries, carefully modulated and composed boundaries which define both the public space outside them and the reserved space within. The modern transformer station does not have



boundaries in that sense-certainly not boundaries in which the transition from public to private is articulated or given ceremonial presence. It is surrounded by wire fences whose only message is 'keep out'-not 'look at me' or 'here I am' or 'come stand in my shadow' but 'go away!'

Reflecting on boundaries, I believe, is a very good way of grasping the significance of aesthetic education generally. In every sphere we depend upon boundaries. We are protected from domination by our rights, which in a civilised society create a sphere of sovereignty around every individual member. We are protected from prurient curiosity by our clothes, which we also use in order to signal the various degrees of approachability that seem appropriate. We are walled round by manners and conventions that bring safety and certainty in the otherwise intimidating life among strangers. Some of our boundaries are permeable and expressly designed to offer a welcome, when the welcome has

FIGURE 1: ISLINGTON

been earned: so it is with manners and courtesies. Other boundaries are firm rebuttals, such as those created by the law. These distinctions have their counterpart in the language of architecture. Walls can be forbidding, inviting, permeable or semi-permeable. Doorways may be ceremonious or perfunctory. Exteriors can be accommodating or severe. And the language here is integral to the way in which a building fits to its neighbours. In this way the art of the boundary, through which we learn to accommodate our desires and places to those of our neighbours, is replicated in the sphere of architecture, and illustrates the way in which aesthetic education and moral education are rooted in the same human need-the need to live in harmony with others, and to reconcile individual ambition with a shared sense of home.

Creating and managing boundaries is one part of it. Just as important is the art of fitting one thing to another so that it looks right. Looking right' does not mean 'looking right to me': in this judgment, as Kant made clear, we open ourselves to criticism. We are 'suitors for agreement', aware that what we do is of interest to others, and that we are creating something that is shared-whether or not with any specific person. Grasping this point has always seemed to me to be the most crucial step in understanding the place of the aesthetic in human life. It is a point that Wittgenstein, in his own idiom, makes central to his all-too-brief lectures on aesthetics, and it is a point that can be illustrated in a way of which Wittgenstein would surely have approved, by studying the 'natural expression' of aesthetic choice in the faces and gestures of children. Ask children to lay a table or to arrange a room, and at once they begin to attend to the way things look, and to the meaning of the way things look-the meaning for others. Is it right to put the napkin on the plate or should it be by the side of it? The emphasis on 'getting it right', rather than beauty, is easily understood from examples of this kind. So too is the connection between getting it right and fitting in.

The ability to match things to each other is hard to reduce to any more primitive capacity, but it seems to be fundamental to what we are, and to our ways of negotiating our way through social and visual complexities. And it has two aspects. We match one thing to another of the same broad category—for example knife to fork in a given pattern, or a certain style of porcelain to a certain kind of napkin. But we also match objects to moods, life-styles, ways of being and feeling, and in this way make the most farreaching connections between aesthetic judgment and the moral life.

The 'matching' process can be educated. When a choice is exposed to judgment, the search for reasons begins. We can ask the child why she put the spoon to the right of the bowl, and she might well have an answer: because that is what is done, because it looks right, because then you have a nice straight line and a circle. We can teach her to make comparisons—which style of spoon looks best, for example, and why. Inevitably the 'why?' question, even if it peters out in the declaration that there is nothing further to be said, commits us to comparative judgments, to finding meaning and emotion in the objects that we choose, and to developing a repertoire of forms that go easily and unquestionably together. Style is precipitated out from judgment, since it is what gives purchase to a reasoned answer to the question 'why this, given that?'

Style is not the same as syntax, and if we refer to the classical style in architecture we are not, literally, referring to a grammar,--that is, a system of rules for generating complex meanings from meaningful parts. All kinds of misleading analogies arise at this point, and the analogy with language is perhaps the most dangerous of them, since it seems to imply that the rules of style are arbitrary in the way that the grammatical rules of a language are arbitrary. Although styles are many and varied, they are rooted in features of the human condition that influence how we perceive and respond to shape, colour, form and mass. No stylistic convention can make a vast featureless hulk like the new Linked-In building in San Francisco look anything but oppressive and at odds with its surroundings. No stylistic convention can endow one of Libeskind's knife-like assaults on a traditional building with a humane meaning when we are ineluctably led to see the result as a species of architectural murder.

This does not mean that the idea of grammar, used as a metaphorical summary of something that we expect a building to exhibit, is entirely inappropriate. On the contrary. It reminds us of the fact that order and harmony, here as elsewhere 66 NO STYLISTIC CONVENTION CAN ENDOW ONE OF LIBESKIND'S KNIFE-LIKE ASSAULTS ON A TRADITIONAL BUILDING WITH A HUMANE MEANING 7 7 in our lives, come about through composition. It is because significant parts are matched to significant parts that we sense the emergence of order in architecture, and forms that elide all parts into a single molten flow as in so much post-modernist 'gadget' architecture offend against a primary need. The case is comparable to that of music, which has evolved as an art-form largely through quasi-syntactical conventions, governing key relations, voice-leading and harmonic progressions, and in which we have acquired the pronounced feeling for the 'wrong note' and the 'wrong chord'. If you compose while ignoring those conventions then you risk producing music in which nothing sounds wrong, because nothing sounds right.

The features of aesthetic education that I am trying to bring to mind are well illustrated by the Classical Orders, and especially by those aspects of the Orders that have rubbed off on vernacular architecture down the centuries. We should see the Orders as summaries of a long process of matching, through which the post and beam structure–the prima materia of functional building–has been embellished and humanised. The textbooks, from Vitruvius through the Renaissance manuals to Chambers, provide rules of proportion and detail, which have all the appearance of a grammar: if you do this, you must do that, and so on. But as with treatises of tonal harmony, the imperative mood is misleading. The real speech-act is not prescriptive but descriptive: these manuals tell us what has been done, with a vague exhortation to respect it.

The study of the Orders was a training in the matching of parts, and in understanding what constitutes a part rather than a chunk or a section. They taught proportion, by teaching the student how to perceive it. Proportion is not a purely geometrical idea. It arises from the relation between measures, and measures exist only where there are parts that begin and end, and the edges that close them. Hence proportion is perceivable only where there are boundaries, divisions, and significant details. A building like the Linked-In Building that I referred to earlier can never be seen as proportionate or harmonious, since it has no details. Nothing on the visible surface of this building, is 'between' one place and another. No line has closure, no surface detail stands out and nothing begins, ends or moves to a conclusion.

In the Tuscan Doric Order the column is wrapped by an astragal just below the capital: a semi-circular moulding which has the effect of tempering the upward thrust of the column, and also introducing a kind of ambiguity as to whether the section of column above the astragal is part of the capital or part of the column. This ambiguity endows the vertical

with a kind of elasticity, as though it were actively changing places with itself in its determination to push from below. Just focusing for a while on this moulding is an education in itself: it illustrates the point that proportion needs measure and measure needs the edge; it exemplifies the idea of a meaningful part, and also shows the way in which such a part is not stuck on like the metopes in the

frieze but grows from within the structure-it is an efflorescence of the stone. And it illustrates the way in which lines, edges, and boundaries in architecture are not made of hard materials, but of light and shade. boundary is А perceivable only if it casts a shadow, and there is shadow only where there is light. The study of the Orders was a study of the fall of light on a work of stone, and of the ways in which the life of the stone could be coaxed into the



surface. Students of the Beaux-Arts school would be required to draw the shadows on a Corinthian Capital, as these were cast during the divisions of the day. This education is reflected in all successful forms of architecture, from the ordinary use of beading in window and door surrounds, to the supreme refinements of the Gothic mouldings, as lovingly set out in F.A. Paley's *Manual of Gothic* 

FIGURE 2: LINKEDIN BUILDING

## Mouldings, 1841.

Among the many radical changes that divide modern from traditional architecture two in particular should be noted: the replacement of the vertical by the horizontal as the axis of emphasis, and the disappearance of mouldings. Traditional buildings were arranged in a vertical axis, and this is exactly what the Orders were used to teach-a vertical section that could be repeated again and again so as to create an upward vector uniting the whole façade. And the edges were folded over, wrapped around shadows and emphasized with parallels, so that vectors came steadily to closure rather than ceasing abruptly. Those two features shape the background expectations of building not only according to the Orders but in almost all traditional styles. Their loss is associated with the rise of the ground plan and isometric drawing, both made possible by curtain wall structures, steel frames and the replacement of the arch and the beam by continuous girders of steel or reinforced concrete. These innovations in engineering, however, were accompanied by no comparable developments in aesthetic education, so that architects entered a realm of aesthetic ignorance, exemplified by the Linked-In Building discussed above. For a while, it is true, the ordinary architect attempted to pin the vertical order and moulded edges to the façade of a steel frame buildings-as in the wonderful street assemblages of downtown Manhattan. Even Louis Sullivan worked in that way. But then came Mies van der Rohe, the multi-storey tower block in glass and alloy, and the final abolition of light, shade and significant detail. Many praised the result as the sign of a new aesthetic; but ordinary opinion has never been at ease with it, for all the reasons that are implied in my present discussion.

The kind of aesthetic education that I have been associating with the Orders is the property of all who seek to build for others. It is not addressed to the genius, still less to the madman. It is addressed to those humble civil servants who designed the Islington transformer station, to the builders of our pattern-book towns, and to those who produced the pattern books. But here we come up against a great difficulty, which is that contained in the concept of genius. The genius is to a great extent a creation of the Romantic Movement, which presented us with a new idea of the aesthetic endeavour. For Kant and Schopenhauer genius defined the distinctive condition of the artist, who was not conceived as a diligent craftsman whose endeavour is to find a place for his art in the existing culture. He was the one with a unique capacity to transcend the rules and conventions that govern lesser mortals, and to put before them his inner life in all its shining and redemptive perfection. He was the one

with the beautiful soul, to use Hegel's language: the soul distinguished by its sublime and unclassifiable apartness.

Appealing though that idea might be, when considering the great works of poetry, painting and music, it fits ill with the so-called 'useful' arts of architecture, clothing and decoration. There are two reasons for this. Frist, by the very fact that it is useful, architecture involves pursuing a nonaesthetic aim. Even if it is true, as I have argued, that the aim will expire before the building, so that we must make a building that is adaptable to the changes in human interest, and even if it is true that prioritising aesthetic values is the only reliable way to do this, nevertheless the surrender to a purely aesthetic approach, in which nothing matters save the expressive nature of the design, is a kind of denial of architecture.

But there is a second and more important reason for disallowing the Romantic idea of genius, which is that works of architecture are public, observable to, and imposed upon, all who move in their vicinity. You can escape from the poetic genius by not opening his book, and from the musical genius by keeping clear of concert halls. But you cannot escape from the architectural genius. Our cities are being everywhere littered with gadgets whose aggressive refusal to fit in is amplified by their un-composed character, so that they do not fit in even with themselves. Yet, we are assured, they are works of genius, innovative gestures that challenge our expectations, forge new paths into the future, break free from the stultifying constraints of etc. etc.

It is precisely the public nature of architecture that demands aesthetic education. And the goal of that education is not to open the way to the genius, but to civilize the manners of the ordinary builder, who is no more likely to be a genius than Rem Koolhaas, even if somewhat less likely to behave

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**G G** IT IS PRECISELY THE PUBLIC NATURE OF ARCHITECTURE THAT DEMANDS AESTHETIC EDUCATION**? ?**  as one. This is not to say that there is not such a thing as architectural genius. But it is manifest most of all in the inspiration that finds new ways of fitting things together, and producing adaptable solutions to aesthetic problems. In this connection it is surely right to commend the genius of Vignola, Palladio, Borromini and more recently Lutyens, whose war memorials showed how to make plain stone arches stand to mournful attention above the dead. And the inspiration of those modest architects can be felt even in the most modern forms, such as Aldo Rossi's City Hall at Borgoricco, which as it were reaches back to the Palladian serenity, while eschewing the classical grammar.

I have outlined the way in which aesthetic education plays a part in architecture, teaching ordinary builders how to fit part to part and building to building. This process of fitting is what we mean, or ought to mean, by settlement. All durable cities bear witness to this-not just long-standing cities like Siena and Florence, but modern cities too. New York has the air of a durable settlement in part because the iron frame vernacular, with its street-friendly facades, and the early sky-scrapers which hovered above genial doorways on the street, created an adaptable city, one in which buildings have been preserved because their aesthetic qualities make them more valuable than their initial purposes. Compare Detroit, Tampa or Buffalo, in which aesthetic indifference, combined with gargantuan schemes executed by people without aesthetic education, have created 'built deserts', at vast expense, financially, aesthetically and ecologically. It is surely reasonable, in the wake of recent experience, to hope for a new kind of architectural education, which is not simply a matter of teaching how to hang panels onto frames, or to transfer computer-designed doodles onto the townscape, but which begins from inculcating an understanding of the true raw materials of architecture, which are light and shade.