**Lost in the backlash**

How refreshing to re-read Leslie Martin’s classic ‘The Grid as Generator’ ([arq](#) 4|4). Where did it hide during the last 28 years? How useful it would have been as a measure for the proliferation of approaches to the city that have followed in a period that includes Krier’s journey from the Royal Mint Square perimeter block to Poundbury, and Koolhaas’ from Manhattan to the new dense megacities of the Far East.

Martin’s essay is in many ways exemplary. Coming from a cultured architectural position, but open to the possibility that certain parameters of design can usefully be quantified, he opens the possibility of a middle way for architectural research between the established numerically-based model of the physical sciences and the emerging discursive models of cultural studies.

Peter Hall in his introduction to the republished essay counts the applicability was in urban housing – a field quickly eroded in Britain with the death of large-scale comprehensive development. Patrick Hodgkinson’s Foundling Estate in Bloomsbury and Pollards Hill in Merton by Richard MacCormac, David Lea, Peter Bell and Nick Alexander were the obvious examples of the possibility of Martin’s theories put into practice, but they came at the end of an era, both political and architectural. The retreat from density and the rush of government into the arms of the volume house builders rendered Martin’s work irrelevant to practice. We entered a period of prolonged and substantial de-skilling in the design of high density urban housing.

And in the schools of architecture there was the understandable backlash against the crude and reductive functionalism that marked education in the ‘60s. Unjustifiably, Martin’s middle way approach could be tarred with that brush and dismissed. Recall that ‘theory’ was at that time held to be a branch of systems analysis or ‘methodology’ and it became apparent to students of that period (including me) that we were witnessing the emergence of what we would now call ‘anoraks’ – a generation of pseudo-scientists quantifying the obvious at the expense of architectural culture. At this point, and under the influence of Joseph Rykwert and Dalibor Vesely, theory was unhitched from methodology and realigned as a subset of history, a linkage that provides the orthodoxy for locating theory within architectural education but leaves theory distanced from many aspects of practice.

Whatever the historical reasons, we seem to have arrived at a point where most research is obscured from general practice and where the promise of an education informed by research has yet to be fulfilled in a significant way. Indeed, the last decade has witnessed a strange crisis where the very idea of a knowledge-based education in architecture has been itself under question. I recall a meeting to discuss the RIBA’s Stansfield Smith Review of Education where it was suggested (with little opposition) that architecture distinguished itself as a discipline by its lack of a body of knowledge. During the last decade we have valued student projects that have been heady and intoxicating, but ephemeral and introspective, reflecting a sort of charming amateurism at work as if we don’t really need to know anything in order to design.

‘Design has become a self-sufficient activity setting its own terms of generation and fulfilment. It is an approach that leaves practitioners, teachers and researchers in denial of our special knowledge of the built environment, lacking both the terms and the authority to speak for it. Our ideas cannot be translated easily into a larger view – the kind of view that Martin projects. In retrospect, Martin’s approach has two clear advantages. First, it gives the practitioner the means of making sound decisions and, as important, provides the evidence to demonstrate the rationale of the design to a client and to a general public. And second, it reveals knowledge that can be taught, learned and applied in schools of architecture.

**Sustainability responsibilities**

Leslie Martin’s ‘Grid as generator’
Whatever the reasons for this impasse, Peter Hall accuses us of not having the information or the words to articulate it. We give the impression to most non-architects that we are an introverted group which, despite our radical gestures, is conservative and rather aloof. Any survey of contemporary research output confirms the impression that we do not want to make public informed opinions of how the built environment operates and could be improved. Suddenly the tide is turning and we need ways of structuring our ideas, including those on density and urban form, in a way that can make sense to others which means, among other things, quantifying benefits.

It is no surprise that Hall used this text to inform his committee, for there seem to be few equivalent contemporary texts emanating from our university based research community to call upon.

David Porter
Glasgow

Apposite and anti-climactic

Your decision to reprint Leslie Martin's 1972 paper 'The Grid as Generator' (arq 4/4) was apposite. It provided intellectual reconciliation between two schools of planning theory: the art of civic design and the science of empirical analysis of the use of land. After more than two decades out of favour (during which systems theory and an interest in the process of planning rather than its product were the vogue) both schools of planning are again in the ascendancy. The Urban Task Force reawakened the belief that repairing and reinvigorating cities requires above all else the skill of the architect. The DETR (Department of the Environment, Transport and the Regions) has trustingly acceded, but reverted to empirical tools – the setting of quality of life indicators, for example, and the specification of minimum net residential and maximum car parking densities in new development. We are stumbling into learning how cities should best be made and managed. ‘The Grid as Generator’ reminds us of long-forgotten ground rules for constructive engagement between the designers and the statisticians, and of the need to invest seriously in land use and built form studies.

I regret to say, however, that the second half of ‘The Grid as Generator’ remains as anti-climactic to me as it did when I was first exposed to it in 1978 (when being inducted in why Central Milton Keynes was being grown on an orthogonal grid). Martin’s demonstration appears simple: that if you omit a movement route in a grid (or change the mode for which it is reserved), larger parcels of development land become available which admit the possibility of more green space and lower rise building. The heavier trafficked routes that remain become, alas, ‘divider’ arterials that might protect the physical identity of neighbourhoods (Buchanan’s ‘environmental areas’) (see Fig. 1) but which will destroy the myriad non-spatially determined networks of people (Webber’s ‘realm of the urban non-place’) that actually make cities live.

For me, the first half of the paper stimulates other conclusions. First, that successful places are very well connected. They require numerous, direct, legible well-paced routes offering choices of experience (quiet and green, crowded and bright and so on). Different intensities of social interchange are available. Second, that different activities and the buildings they require will choose (if allowed) to locate in appropriate parts of the grid. Public buildings at major nodes, for example, and houses in quieter streets. Third, that the key to city building is crafting a physical framework around and through which people and their activities can clamber. Building and rebuilding – the temporal dimension being critical to an understanding of city growth and change – with only a handful of design rules to prevent unsociable or life-threatening selfishness.

Last, the particular joy of the grid when in collision with natural features. If the territory to be occupied is plain, what possible rationale can there be for anything other than an orthogonal grid? Where the territory is disrupted by natural land forms, rivers, woodlands or geological formations, the points of collision offer wonderful opportunities for enriching the experience of the whole. Take another step, and deform the grid in response to topography, and you may enjoy the advantages of both.

Today, the pursuit of sustainable forms of development opens an even wider research agenda for those who will make new cities or remake old ones.

If architecture schools are neglecting the art and science of city building and are not researching aspects of sustainable development, they are failing us: designing buildings as objects in space requires very special skills; but designing the physical and operational frameworks in which there is encouragement for buildings to be erected, altered and even demolished over time requires something else. Architects will not inherit that role unless they can demonstrate their claim to it, no matter how much special pleading may have come from the Urban Task Force. ‘The Grid as Generator’ opens a window on the reasons why.

David Lock
Milton Keynes

Theory, not dogma

Although I was generously given the opportunity to make an extended contribution to arq’s tribute to Leslie Martin (arq 4/4), I hope I may be allowed to respond to your republication of Martin’s important essay, ‘The Grid as Generator’ and to Peter Hall’s introduction to it.

I am delighted that Professor Hall and his colleagues on the Urban Task Force were able to make use of Martin and March’s work on the
fundamentals of land use and built form studies. In particular, the worked example of the Foundling Estate, which is such an important part of ‘The Grid as Generator’ [Figs. 2 and 3]. Since its original publication I have frequently made use of this potent essay in both my research and my teaching. In the last academic year Martin’s work was invaluable to two of my graduate students at Cardiff in their design-based research in response to the recommendations of the Urban Task Force.

The essay acquired further importance for me when, in 1983, Stephen Greenberg and I formed our practice partnership and, soon afterwards, moved our studio to a conversion of a former workshop in Brownlow Mews, just on the eastern edge of the Foundling Estate. One of our first commissions was for a small house, to replace an existing workshop structure, in nearby Doughty Mews [Fig. 4]. This began an involvement with the transformation of this mews, which led to four further completed projects and one, sadly, unexecuted design in the following 15 years. These and buildings by other architects are, in sum, part of a step-by-step, but significant transformation of the Georgian fabric of this part of the city. The large ‘second rate’ houses of Doughty Street have become either apartment buildings or professional offices and the mews behind have acquired new social and economic value as locations for dwelling and working in the city.

In Martin’s theoretical proposition for the area (Fig. 7d in the essay – Figure 3 here), Brownlow and Doughty Mews, at the south-east corner of the plan, are apparently replaced by planted spaces behind the Georgian houses on Doughty Street. It would seem that our small-scale interventions support the kind of pragmatic urban development, which it was Martin’s purpose to condemn. But, as he wrote, ‘… to know what is theoretically possible is to allow wider scope for decisions and objectives’. One of his constant themes was that theory must not become dogma. In the conclusion to ‘The Grid as Generator’ he demonstrated this point when he stated, ‘We can modify the theoretical framework to respect historic areas and elaborate it as we build. And we shall also know that the overlapping needs of living in an area have been seen as a whole and that there will be new possibilities and choices for the future’. While our projects were, of course, specific commissions to meet the needs of individual clients, we tried constantly to see them as elements in the systematic and progressive transformation of the city. In other words, they were grounded in that sense of the greater whole, which we learned from our association with Leslie Martin, as both students and colleagues.

Peter Hall suggests, that in many departments of architecture, ‘… the crucial link between research and design has been fatally lost’. I don’t entirely share his pessimism, much depends, as I have argued frequently in the pages of arq, upon one’s definition of research. I do however believe, with him, that the link between research and design, both in the teaching studio and in practice, should be constantly demonstrated, to the benefit of both. Only in this way will they be given substance and validity. As Martin insisted, ‘We can choose’.  

Dean Hawkes  
Cardiff

Research and design in academia
In Peter Hall’s introduction to Leslie Martin’s ‘The Grid as Generator’ [arq 4/4] he states that ‘the crucial link between research and design has been fatally lost’ and that ‘it is more than high time that architecture schools begin to rediscover it’. I am not so sure Hall is correct in saying that the link has been broken, though the parameters may have changed since Leslie Martin’s day. Martin’s work was set in the context of post-Oxford Conference architectural education and research, with its alliance to the models of the sciences and objective analysis. The link between research and design could then be identified as an instrumental one, with the former directly guiding the latter along prescriptive tramlines. The intellectual strength of such methodological approaches may be apparent, and to some extent they fulfilled the Oxford Conference’s mission of saving architecture within the elite academies. But there are also dangers in the determinist use of research to direct design.

While Hall is right in dismissing the idea of design as a mere exercise in applied aesthetics, he is wrong to throw this charge at all Schools of Architecture. A number of Schools are actively pursuing and reinforcing links between design
and research, but not necessarily in an instrumental way. At the University of Sheffield, we base the whole of the postgraduate Diploma in Architecture on the ethos of research and research-by-design. All students take a research methods course, all are involved in urban research (for the results see arq 3/3) and all are taught in studios run by active academic researchers. The talk is not of style and aesthetic, but analysis and strategy.

I suspect the problem that Peter Hall may have had is not being able to identify direct causal links between research and design in architecture schools. Research-by-design often breaks the grip of instrumental rationality inasmuch as it involves creative synthesis. Design is not a wilful or impulsive gesture (as my use of the word creativity may imply) but can and should be just as rigorous as any other form of academic research – analysing the issues at stake, acting with intent, and moving to the production of new forms of social inhabitation and engagement. These forms, let us call them buildings, are indeed new forms of knowledge. However, this knowledge is not apprehended through the traditional virtues of scholarship but through our engagement as cognisant, sentient, beings. If one of the defining features of research is that it leads to new forms of knowledge, then I would argue that architectural design is an exemplary form of research, but only if the process is undertaken in a rigorous context. It is up to academics and practitioners alike to set and explain this context, and until we do we should expect, and possibly deserve, criticism such as Peter Hall’s.

JEREMY TILL
Sheffield

Leslie Martin: debts acknowledged...

I owe Leslie Martin a great personal debt: in 1964 he asked me to come and teach at Cambridge and at the same time arranged for me to design a laboratory building at Royal Holloway College. I went on to teach at Cambridge for 12 years and to design, among others, two further buildings at Royal Holloway, part of London University. It was the ideal combination of practice and academic activity of which Martin was a prime exponent.

But I and all architects owe Leslie Martin a far more serious and general debt. It has been said that Lutyens made the practice of architecture socially acceptable. It could be said with greater significance that Leslie Martin made architecture as a discipline and as a practice intellectually rigorous and thus of necessity to be taken seriously. This had a profound effect on education; it eventually found its way into many offices. Intellectual rigour, however, never displaced visual appeal; the influence of Aalto was too strong for that.

To visit Leslie and Sadie at the Mill and later at Church Street Barns was also to witness a civilized way of life in which the visual arts, music, gardening (especially the pruning of fruit trees) and conversation all played their part. It was a contribution – to use one of Leslie’s favourite words always generously implied – to the lives of all who had the experience.

MICHAEL BRAWNE
Bath

Michael Brawne is Emeritus Professor of Architecture at the University of Bath

...and teaching remembered...

I have had the honour to write and lecture on a number of occasions about Leslie Martin’s work and buildings but the excellent reviews and commentaries you published in your previous issue (arq 4/4) moved me to wish to relate an incident from his teaching which sheds much light.

I was a student at Cambridge and in 1965 in the second year Lent Term we designed a social centre with David Roberts, Peter Bicknell and Edward Cullinan as year masters. There were about 35 of us in the Year and we were asked to hand in our sketch designs one evening.

The next morning we found that Leslie Martin had pinned up all the plans in sequence around the crit room. He then spent the morning comparing and contrasting, defining the family types, the concepts and approaches, showing how no scheme was an individual but related to others and how general types had general characteristics and how some developed these possibilities (and by implication how others did not) and how different patterns and forms of ordering were evident. It was a way of presenting designs and learning lessons in which all could feel they were contributing, even though as far as I can recall only Leslie spoke, and none felt slighted. I can say this last with some authority for my scheme was at one extreme end of the spectrum; that which ‘requires more order’.

Lessons and a way of teaching and thinking (and later writing) about architecture never forgotten.

ROGER STONEHOUSE
Manchester

Roger Stonehouse is Professor of Architecture at the University of Manchester

Sustainability: a shared responsibility

You are right to claim in your Leader (arq 4/3) that ‘most unsustainable behaviour gets written into the initial problem statements in projects’ and you are right also to claim that [architects] ‘need to get out in front of the building process and begin to rewrite the rules and redesign the processes that now generate so much unsustainable development ... [often] talking clients out of what they think they need ...’

All good and worthy stuff, but we must remember too the difficulties that arise from the context in which we now live and work – that is, a profession operating in the (UK’s) post ‘welfare state’ era, a profession which suffers the ambiguity of protection of title (not function), and a profession which witnesses all too often the damaging effect of a barely regulated construction and development industry operating within a market democracy.

In the UK, the state increasingly turns to the private sector to supply even its own infrastructure – PFIs (Private Finance Initiatives) now operate for schools, health buildings, and even prisons. The construction industry competes relentlessly for commissions, be they for the state or the private sector, and success is determined against an increasingly fluid cocktail of criteria that is consistent only in its demand for ever shorter project lead-in times, ever less ‘up-front’ investment in terms of preparation, and ever cheaper out-turns.

Jeremy Till is Professor of Architecture and Head of School, University of Sheffield and a partner in Sarah Wigglesworth Architects
Under such conditions the architectural profession is all too often abused and misused and its capacity to influence better outcomes, let alone demand them, is thus highly compromised.

The UK Architects’ Registration Board (ARB) took the interesting and arguably commendable step recently of requiring registered architects to ‘have due regard to the need to conserve and enhance the quality of the environment and its natural resources’ (Code of Conduct 1997, Standard 5). Obviously unenforceable and therefore hopelessly inoperable, that requirement was modified in the Board’s 1999 Code revision to ‘Whilst Architects’ [sic] primary responsibility is to their clients, they should nevertheless have due regard to their wider responsibility to conserve and enhance the quality of the environment and its natural resources’.

The point here is that the RIBA, the profession and its members are limited in the extent and sphere of their influence. Their mission is to inspire and inform, but they must simultaneously survive within the harsh context of the market economy. That said, evidence of good progress does exist. Richard Rogers’ Urban Task Force Report, which represents an extraordinary achievement dealing with sustainable living and development in its widest sense, has substantially informed the UK government’s White Paper on Urban Design published in December 2000. Meanwhile, the RIBA has recently modified the core curriculum requirements for schools of architecture in the UK and overseas to focus attention more effectively towards issues of sustainability. Evidence of knowledge and skill will, in future, be required in the project-based design work of all students. The potential extent of the Institute’s influence in this respect is enormous: some 25% of the world’s population of architectural students are enrolled on courses validated by the RIBA, where appropriate with ARB and Commonwealth Association of Architects assistance.

With buildings in the ‘developed’ economies accounting for some 50% of their CO₂ output (transport is 30% and manufacturing 20%), the construction and development industries have an enormous responsibility with respect to achieving ecologically sustainable practice within our communities. In that context architects must have a major role, but the responsibility cannot and should not be seen as exclusively theirs. You are nevertheless right to draw attention to these matters, and I would be grateful if you would allow me to highlight the initiatives that have been taken as set out above. That said, as Lord Ezra has claimed ‘Time is running out’ and we need to see progress very rapidly indeed.

Paul Hyett
London

Paul Hyett is RIBA President-elect, Chairman of the Institute’s Education Committee and a partner in practice

Letters should be sent to Peter Carolin, arq, c/o University of Cambridge Department of Architecture, 1 Scroope Terrace, Cambridge CB2 1RE, UK F +44 (0)1223 332960 or Emailed to pca07@hermes.cam.ac.uk

The Editors reserve the right to shorten letters.
Would you like to reach architects?

arq architectural research quarterly

This ground-breaking quarterly publication aims to act as an international forum for practitioners and academics by publishing cutting-edge research on all aspects of architectural endeavour.

Generously illustrated and laid out to the very high standards expected by its architectural readership, arq includes sections on design, history, theory, construction, structures, information technology, environmental design and practice. These are supplemented by a leader and letters, reports, reviews and a regular end-piece.

arq is edited by two senior academics, each with many years of experience as Editors of internationally renowned professional journals. They are supported by an international Editorial Board of practitioners and academics – committed to providing a lasting and invaluable resource for all.

Advising Rates and Data
Volume 5 in 2001
Publication dates: March, June, September and December
Copydate: 8 weeks prior to 1st of publication month

Full page £245/$385
Half page £165/$260
Quarter page £110/£175
Loose insert £115/$185

Mechanical Details
Full page advert size 250 x 170mm
Half page horizontal 120 x 170mm
Half page vertical 250 x 82mm
Quarter page 120 x 85mm

The Edinburgh Building, Cambridge, CB2 2RU, UK
40 West 20th Street, New York, NY 10011-4211, USA

Take a closer look... free
Please send me a media pack for arq: architectural research quarterly

name
address

Photocopy and send coupon to:
Rebecca Curtis, Journals Advertising Promoter,
Cambridge University Press,
The Edinburgh Building, Cambridge, CB2 2RU, UK

3/2001