

## THE NEW TENEMENT: TRADITION AND MODERNITY

Friday, 10 May 2013, Mackintosh Building, Glasgow School of Art, 167 Renfrew Street, Glasgow

### '21st Century Tenement Competition'

by Ken Macae (Mackintosh School of Architecture, Glasgow School of Art)



I would like to talk about this project for a new tenement built in the late 1980s

In 1984 the community based Maryhill Housing Assoc - launched an architectural competition for a tenement for the 21st Century. The competition was jointly organised with the RIAS, The Housing Corporation, and the City of Glasgow District Council.

The driving force behind this competition was the late Jean McGuire, who from its founding in 1977, had been the Maryhill Housing Assoc's secretary, a formidable woman of ample heart and bosom and inexhaustible energy. A life-long tenement dweller she was former bus conductress and High Officials at what was then the Scottish Office had been seen to quail before her.

Jean felt hurt by some of the opposition to her idea for the competition, and indeed the abuse she encountered - one City housing mandarin wanted to know if she also had a notion to bring back paraffin lamps. This of course was a time when "tenement" was a pejorative term, almost exclusively used to describe a slum property. Glasgow City fathers were demolishing the tenements seeing them as an unwholesome legacy from an exploitative past, and blaming them for all ills

- infectious disease, antisocial behaviour, and crime. The tenements were also soot black in colour and inconveniently laid out according to post-war planning models.

It took Big Jean about 5 year to get the competition under way. She was responding to the people of Maryhill telling her that they liked living in tenements and why are they not still building them and why are they building high rise tower blocks when they are so unpopular with families, and why can't we live in downtown Maryhill rather than a bus journey away in the suburbs.

It was nostalgia as much for the tenement building form as for the rich lifestyle it supported, thanks to the density of population it achieves - a real urban density.

The competition aims were to stimulate a serious re-examination of the desirable qualities of the historic building form of the tenement in the light of contemporary circumstances: social - technical - economic, and in particular to find an adequate solution to the problem of re-establishing the urban continuity of Glasgow's city streets, where clearances had created awkward breaks and gaps in the built form.

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They were looking for a design for a typical modern prototype tenement-updated to meet present day needs - to be sited contiguous with an existing rehabilitated tenement area - they were looking for a Tenement for the 21st Century.

The site location just off Maryhill Road, at the junction of Shakespeare Street and Stratford Street, became available following the collapse of the Late Victorian/ Early Edwardian tenements that had been on the site, which it turned out had been built on an old quarry that had then been used as a dump for domestic refuse in earlier Victorian times.

The foundations of the earlier tenement were revealed, during the new build excavations, and were surprisingly narrow concrete strips, reinforced with steel railway lines. It was no surprise on seeing these foundations that the original buildings collapsed.

The consolidation of the site presented a particular challenge as not only was there an old quarry filled with rubbish, but below that there were old coal mine workings.

I was living in London at the time and the competition submission that I made - in association with the Glasgow practice of McGurn Logan Duncan & Opfer - we offered the time-honoured tenement concept of a linear living wall of walk-up dwellings with a public frontage and a private rear, with the scale and character of the older Glasgow tenement - and in order to achieve this, a cross section was developed which married a four storey frontage to a six storey rear, giving traditional tenement height living rooms to the front with current building regulation height bedrooms and kitchens to the rear, and allowed a vertical mix of flats and maisonettes accessed from a common close.

In the particular site context, the existing tenement frontage on Shakespeare Street was taken as the springing point for a semi-circular building which curved round to conceal the area of back courts exposed by the earlier demolition or collapse, and reinstate the urban block.

There was no outright winner of the competition - 4 submissions were premiated

The judges' report said of our entry that:

It offered a clever solution to the site plan which would have most satisfactorily resolved the problems of public and private space and provided a splendid aspect from Maryhill Road and from the car park of the adjoining superstore. The building proposed, however, was priced at 20% above the allowable cost and the assessors felt that this aspect of the programme had not been realistically tackled as a buildable proposition. Therefore while it was a most interesting proposal and a splendid gesture, it was not acceptable as a winning entry .

The competition had to include both structural and costing submissions and we were assured by the QS on the original design team that although it would be an expensive scheme, there were then currently precedents of new build housing schemes in Glasgow being approved by the Housing Corporation at up to 20% over cost yardstick, and I suppose we were naïve enough to go along with them.

As it turned out, when we were commissioned, the clients insisted that we used both their structural and QS consultants, and our original competition team consultants were sidelined.

Two years were spent refining the project to meet the Housing Corporations indicative costs and overcoming difficulties with the ground conditions. Scottish Development Agency stepped in and funded the extensive piling foundations with a bit of encouragement of course from Our Jean Maguire.

The working drawings were computer drafted using the services of Keppie Henderson Architects, who were early CAAD immigrants, using a computer that was the size of a wardrobe, it was 1985 remember.

Early on in the development of the project I built a model to explain the flat layouts to the MHA lay committee, to clarify some of the complexities in the

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planning and sectional organisation, and one of the issues they raised was that kitchens and living room should be totally separate – it was seen as some sort of stigma harking back to the old room and kitchen days - so the hatches or doors connecting the kitchens and living rooms were filled in with access only through the internal hallways, although they could still be fairly easily opened up as the structural lintels were all installed.

The housing mix includes 2, 3, 4, and 5 apartment dwellings with wheelchair and ambulant disabled flats at ground floor, 56 dwellings in total, for rental, in seven common closes.

The front façade was detailed in buff fair faced concrete blockwork, with gray granite mix concrete blockwork on the ground floor, sandstone red pre-cast string course and attic storey mullions, sills, and lintels. Blue stained sash and case timber windows to the flats were broken up by metal stair windows which together with the porch fronts and chimneys, signalled the common close entries. Metal catwalk balconies allowed the piano-nobile windows at first floor to come down to floor level.

The building had always been conceived as a blockwork building, not pretending to be a stone building, as the two materials are quite different. Blockwork is really a component; it being modular sized, and as such requires to be carefully detailed in terms of all bonding joints, unlike stone as a material where normally only course heights would have been determined at the design stage.

Concrete blockwork is relatively porous and any water hitting the wallhead goes straight through and ends up showing as efflorescence staining on the face. In Scotland especially, a common mistake is detailing blockwork with flush copings – it is doomed to failure. Wallheads have to be protected at all times, even during construction.

Drawings were made of every block in the elevations, like components rather than material. It was designed as stretcher bond and throughout, the perpends never line through, not even at lintol or cill junctions

The QS for the scheme construction advised us that,

under the Standard Method of Measurement, any builder-work to a curve had a 90% on-cost, which would have blown the project out the water, so all the contractors who priced the job were advised at tender stage that keen pricing on the curved work would be critical if they seriously wanted to win the contract.

Working to a curved radius was a problem for the block layers. It was fine at first then when they reached the block lintols they had difficulty laying them to the radius – they kept creeping back to the flat. Eventually after building some lintols three times to get them right, they resorted to making templates.

The pre-cast work was the acid test – this was all manufactured to radius and if it did not fit then the block work was at fault.

The client expressed a preference for sash and case windows for the dwellings as a result of their experience of failures in other window types in some of their window replacement contacts. Sash and case windows are popular as they do not have complicated ironmongery and the timber sections are easily accessible for maintenance and repair. They have for some time been available as double glazed, and with a severe weather exposure rating.

The common stair windows were designed as standard W 20 metal casements with horizontal pivot inserts to allow cleaning access from the inside.

Because of its height the building was classed by building regulations as a high-rise and had to comply with regulations, as if it were 20 storeys. The major implication of this was the requirement for ventilated lobbies as a two door approach to the dwelling entrances, which was not possible here in such a tight plan footprint.

This was solved by pressurising the common approach lobbies, with air ducted from large powerful fans located in the roof space, triggered by smoke or heat detectors in the dwellings.

It proved very popular with the Fire Service in fact at

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trials the pressure system clearly held the smoke back inside the flat, with the entrance door left open, keeping the stairway smoke-free for escape and fire service safe emergency access. On the other hand the dry risers, that had also to be included, were dismissed by the same Fire Service officers as a waste of time, as they would never rely on them in a real emergency as the valves would invariably have been stolen.

We ended up paying the M & E consultant's design fee for the pressurisation system, and although it was not blue sky design - they worked to a BS, I suspect the reason for this type of cross-section not being more widely adopted, was down to the cost of this. The Housing Corporation funding rules were so strict that there were no contingencies allowed whatsoever in building contracts.

It went out to tender in August 1986 and the £2.1M project was awarded to Laing Scotland. Work started on site in February 1987 and the development was formally opened as Craigen Court on 17 March 1989.

When the tenders were returned in 1986 we had a sweepstake in the office for who could guess most accurately the winning tender return. Everyone was sure it would be well over the odds, however, I won with my estimate – it was bang on the approved limit.

Let me finish off with an apt quotation from "Dancing in the Streets" by Clifford Hanley...

*But what did they go and build tenement closes for? I don't mean I object to the tenements and the closes. I ask myself the question in pure scientific curiosity. Why should a million people all gather together and put up four-storey-buildings and streets among them and pends and back-courts, and decide to live the rest of their lives in this pile of stone? And why should anybody sane want to come and join them in t?*

*And having done that, why should they start finding affection for the heap, and giving it names and reputations as if it were a juju, and inventing jokes about it, and writing songs about it, and carrying on as if it was something ancient and permanent and pre-ordained and the best ting of its kind in human history? It baffles me*

*utterly, and the answers, the crisp fourth-hand answers in sociology do nothing but pile more mystery on top of the original mystery. The real answer is somewhere in the primitive magic we fancy we have left behind in the caves. That's what Glasgow is like. It isn't a place, its rite, and the motions are written somewhere in the blood. Half the time you would like to get rid of it altogether. But you can't live any kind of reasonable kind of life without blood.*

