

Design and build has become big business, and is seen by some as a threat to the architect's role as leader of the building team. But there is also another side to design and build: co-operatives are now trying to implement radical ideas about architecture, building and working relationships. One of these groups is Collective Building and Design, based in Hackney. Tom Woolley talked to members, visited two projects and concludes that their way of working is particularly appropriate to certain clients. Photographs by Ian Dobbie.

COLLECTIVE BUILDING & DESIGN

Collective Building and Design is a workers' co-operative which offers a complete construction service from design feasibility to building. Founded in 1974 and employing 12 people, including some trained as builders and others as architects, CBD tries to put into practice a radical ideology about how buildings should be built. Its three main aims are to function as a self-managed collective; to break down the sharp traditional distinction between those who design and those who build; and to work only for clients whose aims they sympathise with. CBD tries to work in a non-hierarchical way, involving all members irrespective of trade and experience. Members say the typical boss-worker relationship exploits workers and often leads to buildings of poor quality. By removing this hierarchical structure, they aim to create a more relaxed, friendly and enjoyable working environment.

CBD is also trying to change the normal contract management relations whereby the architect controls what the builder does. Members do this by rotating and sharing the work, whether it is designing in the office, managing on site, doing skilled building work, labouring or preparing specifications and estimates. Finally they want to work for and with community and voluntary groups, on building projects with socially useful purposes.

Ten years' growth

CBD was launched by a small group of architects and builders who were disillusioned with the structure of the industry. They registered as a co-operative under Industrial and Provident Society rules, giving up their jobs on the strength of an offer to convert a house. The conversion job fell through, but they found other small jobs to keep them going. They collected tools through birthday presents because they had no capital. Dick, one of the founder members, explains that they were very naive then and, 'with the arrogance of many architects, (we) seriously underestimated the skills needed to become good builders'.

Ten years later the firm has a turnover of more than £170 000, owns

a workshop, office and builders' yard in Hackney, and members reckon they have an acceptable income and good fringe benefits. Everyone gets equal pay, irrespective of skills or experience, two weeks' paid paternity leave (or longer maternity leave) and members with children get a day off a week or extra wages.

Working as a collective

The whole group attends weekly meetings. It decides who will work on which jobs, and sorts out financial plans and day to day problems. Every fourth meeting or so is set aside to discuss more general issues such as trade unions and the problems of expansion. The meetings are also an opportunity to discuss particular jobs and share work experience.

Work is planned so that every member of the collective regularly runs a job. For example, Jonathan spent six months in the office preparing design and production information for the next phase of CBD's biggest project, the Huddleston Centre in Hackney (p49). He is now on site and jointly runs the job with Mark (another founder member). Meanwhile another member of the group is in the office working on plans for the next project and dealing with calls and enquiries.

Whatever the work, whether it is designing, job organisation or construction, no one has authority over other members. Usually two members work together to run each contract and in this way responsibility and information are shared so that they do not depend too much on one person's experience. Members with design education backgrounds have learnt more about the building process, and those with building backgrounds have more control over the design. There is a continuity throughout the job. Details can easily be changed to the benefit of the client because the designer is building on site, not just visiting it once a week. Having designed, specified and scheduled the scheme and costed it, they can see how this works out on site. No one can pass the buck and there have been no disputes over contracts. They are convinced that this is far better than

the tendering, hire-and-fire system that dominates the construction industry in the UK.

Problems in practice

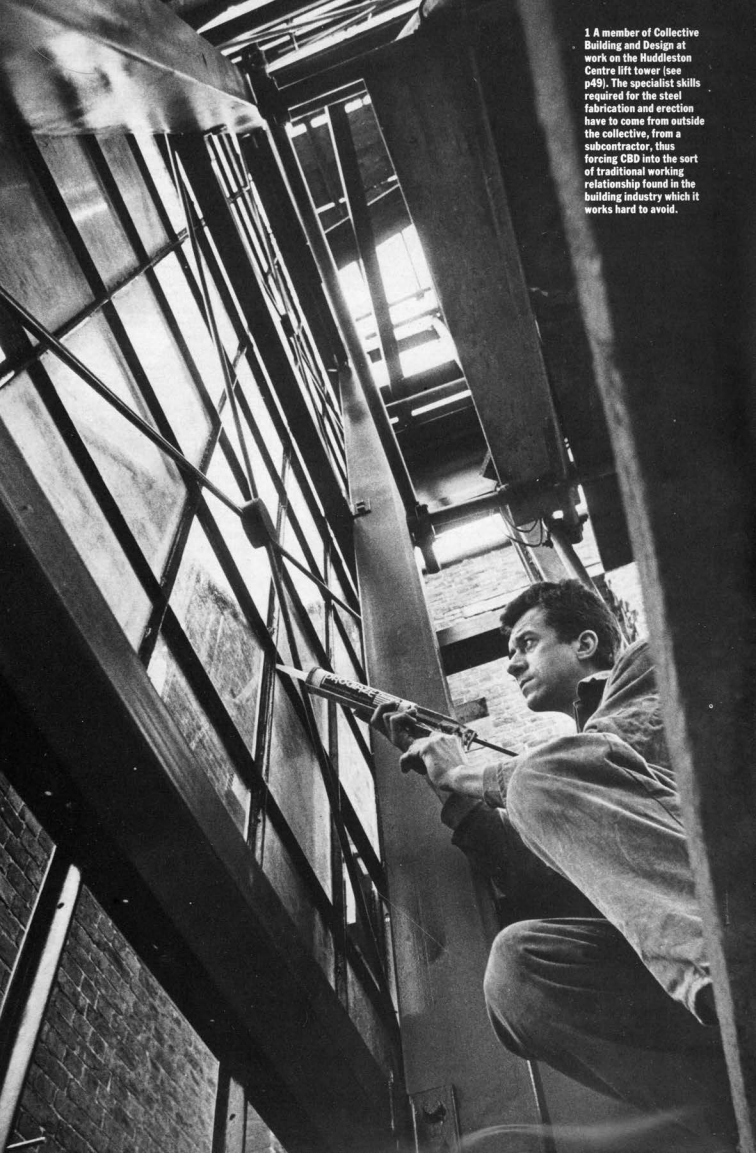
This sounds fine in theory, but does it work? Since Robert Owen and the Rochdale Pioneers, co-operative principles seem to have faltered in the market-place. In the '70s Sunderlandia (a trade union backed builders' co-op with over 30 workers) ran into difficulties when it tried to apply the co-operative ideal to construction (AJ 19.10.77 p747). The building industry has always functioned in a very hierarchical way and there has been a growing specialisation and division of labour. Sunderlandia and, more recently, a group called PELAW in Haringey, London, had mostly conventional relationships on site but tried to operate on co-operative management principles at meetings.

But CBD has emphasised the need to avoid a hierarchy on site and in management decisions, while accepting that each member has different specialist skills. However, it is not easy to combine idealism and earning a living. For instance, even the community jobs they prefer doing often include specialist work that has to be subcontracted out, so then they employ people who work in ways CBD is trying to avoid. And of course the subcontractors think that CBD designers are crazy, out labouring when they could be sitting comfortably in an office. One solution for CBD has been to use other co-operatives, like a feminist electrician subcontractor, with similar progressive ideas.

Working to principles

Another problem for CBD is that it is not always easy to share work equally when it has to be done to deadlines. It can be expensive and time-consuming to learn on the job. Jack, a carpenter, hangs doors because he is quicker and better at it than the others. He also made the formwork for the impressive internal concrete staircase at the Huddleston Centre, but two other members placed all the reinforcing steel, which neither had done before. They estimate that it took them a week longer than it would have taken

1 A member of Collective Building and Design at work on the Huddleston Centre lift tower (see p49). The specialist skills required for the steel fabrication and erection have to come from outside the collective, from a subcontractor, thus forcing CBD into the sort of traditional working relationship found in the building industry which it works hard to avoid.



2 CBD has built its own workshop, yard and office in Hackney. Dick Watson, one of the founder members, is working on a feasibility study while the others are out on site. CBD, with no managers and secretaries, has low overheads. As work progresses, Dick will move on site and other members will take his place in the office.



specialists, but both wanted to learn how to do it. In fact the district surveyor complimented them on the quality of the work.

Much of the time at CBD's meetings is taken up with resolving the problems which arise from working according to their principles. They ensure that the designers spend at least half their time on site (usually more) and that those trained as builders get a chance to design. They try to get round the problem of differences in work experience by members passing on skills to others when they work together. For instance, Jonathan began work with CBD after three years in an architecture school. He had to learn his building skills from scratch but thinks that he has learnt more about architecture than he would ever have done in the school. Elinor, who has trained and worked as an architect, agrees, but feels that CBD has not gone as far as it might have done in overcoming sexist attitudes in the building trades, and that the proportion of women to men is nowhere near adequate, with only two women in the collective.

Planning workload

For a co-operative that guarantees a regular wage and does not hire and fire, a steady workload is essential. Until 1982 CBD had to rely for more than half its work on small private house conversions. Although these projects have given members good design and build experience, it has always been their aim to work on projects that service a collective need rather than on gentrification. They have also carried out work designed by outside architects, but would never work as conventional architects doing the design and then supervising another builder.

Now CBD has enough work on site and in the pipeline to plan the workload and job organisation. Eddie, a carpenter, and Richard, a plumber, are finishing off work on the Laburnum Boat Club in east London (p52), a job they have been running together. Tricia and Jack are doing an improvement grant aided house conversion for which Jack did the specification and quotation. Elinor,

who worked on site at the Huddleston Centre, is now doing design work for a new-build community workshops project in Islington. Dick and Richard are conducting a design feasibility study for a community centre in the Isle of Dogs, and Alf will shortly start work on a small workshops project for Hackney Co-operative Development Agency. Mark and Jonathan are working on the Huddleston Centre, and Duncan has taken three months off to work on his own house.

Most of CBD's work is through negotiated tenders. On big jobs, especially those with public funding, it has arranged for its prices to be checked by an independent quantity surveyor approved by the local authority. Once a schedule of rates and prices has been agreed, CBD claims that it can be much more flexible than a normal contractor. Clients can change things without too many financial problems. On some projects CBD has helped clients by using discounted or donated materials. Designs have been speedily altered to take advantage of windfall materials and members have worked with volunteer builders without trouble. Although one might expect that working in an 'experimental' way would be expensive for clients and financially risky for CBD, members claim they can be competitive because they do not have to support highly paid managers and site supervisors. Evidence of the cost-effectiveness of design and build and working co-operatively can be seen in their efficiency in getting jobs done and the stability of their workforce with regular salaries. Not many small builders can keep 12 people regularly employed the way CBD does.

Who benefits?

It has taken them 10 years of struggle to get where they are. Collective management can be a painful process: there is no management to blame, it's a strain because everyone has to take responsibility and although things are looking good there is little time to relax. Even the possibility of expansion poses as many problems as not having enough work. Do they remain the same size or do they bring

in more people? Can the present number cope with the workload? These problems are common enough in the construction industry but, when you are running an organisation that is radically different from all those around you, the decisions are made doubly hard. CBD has very little advice and experience to draw on—the building industry nowadays is not interested in supporting such a radical venture.

Even so, CBD's way of working must make many architects envious. To produce designs and then go on site to build them, to learn from your mistakes and change them as you go along, is far more satisfying than the alienating methods of work in many architects' offices. It is not surprising that many architects yearn to build, or drop out of architecture to work as builders.

Even for those working as community architects on renovation projects similar to CBD's, it can be intensely frustrating to hand over the designs to conventional builders. What often follows is a war of nerves to get the job done and avoid too many disputes. It can also be frustrating for building workers who may have better ideas about how to detail or build something, but have to put up with the architect's mistakes. It is rarely possible for architect and builders to meet on site and work out the best solution without causing endless contractual problems.

Design and evolve

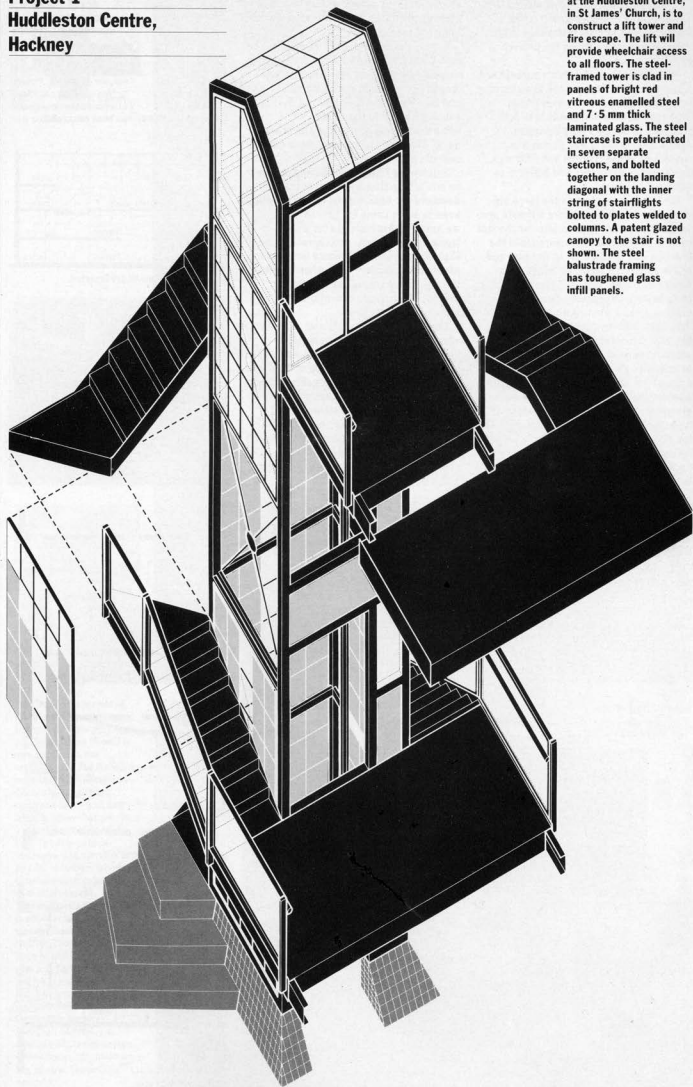
But it is CBD's clients that benefit most from its form of design and build. The character, membership, aims and ideas of voluntary community groups can evolve over the two or three years it can take to finish a project. As the building takes shape these groups see more clearly how they could use it and they start to change their minds. However, CBD can alter the building by using volunteers or windfall materials. This can be a nightmare in conventional building contracts but, as others have shown, for example ABC Architects in their design and construction of the theatre for the Hull Truck Theatre Company (AJ 28.9.83 p43), participative design and build makes for inventiveness and flexibility.

Many so-called community architecture projects have radically changed the way buildings are commissioned and designed by involving 'user-clients'. However, with the exception of Walter Segal's self-build projects, few have tackled the problem of how the building work is carried out.

If we see community architecture as changing the social relationships between building designers and the users, we must also try to change the social relationships between the people who build them. CBD is one model of radical approach to this problem and one hopes that its success will inspire others to follow.

Project 1

Huddleston Centre, Hackney



3 The final stage of work at the Huddleston Centre, in St James' Church, is to construct a lift tower and fire escape. The lift will provide wheelchair access to all floors. The steel-framed tower is clad in panels of bright red vitreous enamelled steel and 7.5 mm thick laminated glass. The steel staircase is prefabricated in seven separate sections, and bolted together on the landing diagonal with the inner string of stairflights bolted to plates welded to columns. A patent glazed canopy to the stair is not shown. The steel balustrade framing has toughened glass infill panels.

The Huddleston Centre is a model of the advantages of CBD's flexible approach. The clients, a voluntary group called Handicapped Children in Hackney (HCH), have worked with CBD on the project from the beginning.

The handicapped children's parents ran a playgroup two days a week in a church hall. CBD helped them to prepare an Urban Aid application and to look for premises to set up a fully equipped centre. Eventually it was decided to convert St James' Church and CBD was appointed as designers and builders to carry out the work.

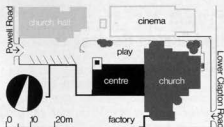
The solution has turned the large old draughty church into a more intimate area for worship, more appropriate for the size of its congregation. The church is in the crossing and the chancel at the east end, and is separated from the Huddleston Centre by a wall. This wall incorporates a large balcony, a dramatic fire-escape staircase and a window which forms a visual link between the two parts. CBD has built two intermediate floors in the old nave, making space for a whole range of activities for the centre. These include a playgroup area, kitchen and eating area, a swimming pool and an office on the ground floor. The first floor includes a room for the parents and a workshop. The top floor, at present still being fitted out, will include a club room for teenagers and a soft room to bounce around in. The work has been done in several phases. As more

money was raised, so the project developed. Only after the first floor had been finished was the go-ahead given to build the second floor.

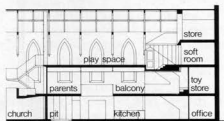
Jeremy Hutchinson, HCH's full time co-ordinator, is very satisfied with CBD's work. He particularly appreciated CBD 'begging' for free or cheap materials and how Mark and Dick gave up one evening a week to supervise volunteers doing concreting and other work, which helped to bring down the overall costs.

Hutchinson thinks that 'having people on site all the time who have actually designed the building and who are really keen to see it come out just as they and we have dreamed, counts for a tremendous amount.' Hutchinson found that working with CBD was a 'much more pleasant experience' than when he was the client on a school and vicarage project which used conventional architects and builders.

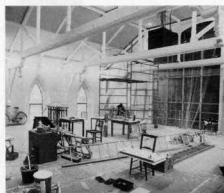
The quality of materials and details is also impressive. Despite being a low budget scheme with money raised from a variety of sources, standards of finishes are high. Space has been organised in an imaginative way, with a central double-height space adding an attractive complexity. Because the project has developed gradually, there is a strong sense of it being well used and well cared for by the client and the designers and builders.



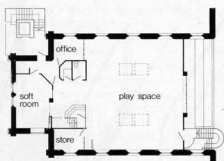
5 Part of the church has been converted.



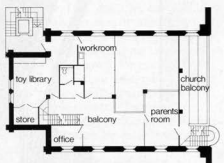
6 Section; two new floors inserted.



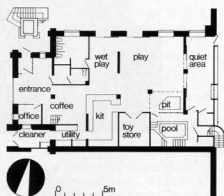
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8 Second floor plan of converted area.



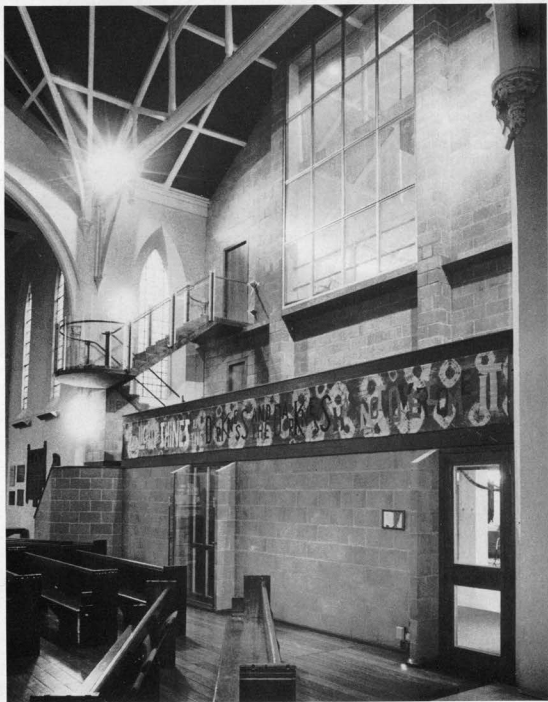
9 First floor plan.



10 Ground floor plan.

4 The main play area on the ground floor is overlooked by a parents' room on the balcony.

7 Work in progress on the top floor play area which may be used for ball games. The large window looks out into the part of the church where services are still held.



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11 Glazed fire screen at the head of the stairs to the second floor play area.

12 The existing church is now located in the crossing, divided from the nave and the Huddleston Centre by a balcony, concrete block wall and large window that provides a visual link between the two. The fire-escape staircase was constructed by CBD members who had little previous experience of reinforcement.

13 The Huddleston Centre is approached from what was the back of the church. The building has been in use for several years as further stages of work have been carried out. The previously insignificant entrance is now celebrated by Jonathan Charmley's exciting lift tower design, which draws attention to the centre. For details see p49.



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Project 2

Laburnum Canoe and Sailing Club, Hackney

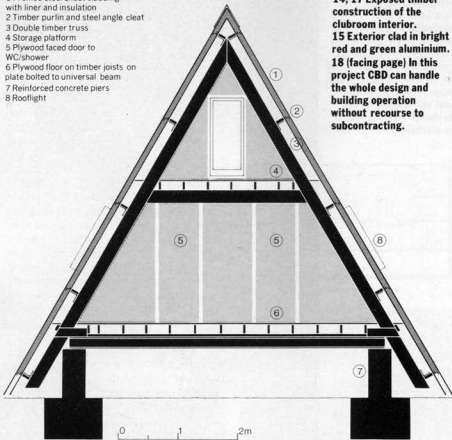
This recently completed building is a large A-frame 'temporary building' standing next to the Grand Union Canal between a housing estate and a derelict factory in Hackney. The club was the result of an initiative from a nearby youth club. It will give local children the chance to learn boating skills on one of London's neglected waterways. Canoes can be stored in the lower part and club meetings can be held above.

It is a good example of CBD's form of design and build. Speed was important,



and it took only six months to complete. This period included a quick feasibility study by Mark, and a more detailed design by Eddie, a carpenter who built it with Richard, a plumber. It also included difficult negotiations for temporary planning permission and for the structural calculations for Building Regulations approval. CBD's flexibility made it possible to cope with these pressures. It is a simple and elegant solution which satisfies the functional requirements in a bold way, brightening up the drab surroundings. It has a delightful atmosphere inside, with the exposed timber and its detailing reflecting a carpenter's understanding of the materials. The internal structure is exposed and the detailing is satisfyingly simple and practical. Sadly, because of its isolated and vulnerable location, the windows and doors have had to be protected with grilles to deter any would-be intruders.

- 1 Profiled steel sheet cladding with liner and insulation
- 2 Timber purlin and steel angle cleat
- 3 Double timber truss
- 4 Storage platform
- 5 Plywood faced door to WC/shower
- 6 Plywood floor on timber joists on plate bolted to universal beam
- 7 Reinforced concrete piers
- 8 Rooflight



16 Section.



- 14, 17 Exposed timber construction of the clubroom interior.
- 15 Exterior clad in bright red and green aluminium.
- 18 (facing page) In this project CBD can handle the whole design and building operation without recourse to subcontracting.

