

America—the vast and exciting arena

Guarded optimism is perhaps the best way to describe the RICS quantity surveyors' initial reaction to their recent mission to the USA. There is no doubt whatever that the American construction industry, and those who sponsor building, received the idea of persistent financial management—budget, cost plan, cost control—with profound interest. Building owners, particularly in the public sector, are worried by the regularity with which contractors' bids exceed cost estimates. Moreover, there is concern, again particularly in the public sector, that architects are designing buildings which more and more frequently exceed project budgets.

However, despite admission by many in the American building scene that there is a need for the kind of cost advice described by the British quantity surveyors, the way ahead is not going to be easy. The seed has been planted in very rich soil, but it will require the husbandry of men of the highest calibre and immense determination if it is to grow to maturity. The construction industry in the USA is a rich but highly competitive, and in many respects conservative, market. It is no place for those unprepared for hard work and financial risk.

THE MISSION LEADER SUMS UP

Selling an idea

Tony Brett-Jones is a partner in a firm of chartered quantity surveyors with offices in Westminster, London; Maidstone, Ashford, Newcastle on Tyne and Hove. Honorary Secretary of the RICS Quantity Surveyors Committee 1962-68 and Chairman 1969-70; a member of the RICS General Council, Educational Policy Committee and Professional Conduct Committee, and present Chairman of the Quantity Surveyors Education and Training Committee. Mr. Brett-Jones's professional career has been entirely in private practice.

Two weeks, four cities, eight lectures, and 30 meetings. World Bank, UN, Federal Agencies, State and City departments, developers and financial institutions, AIA chapters and universities. Selling, selling, selling.

Did we succeed? Professional men turned salesmen for two weeks are perhaps not the best judges. We shall only know if we are hired. Or will we? What we were really selling to Americans was not ourselves but an idea, a profession and, therefore, surely an indigenous quantity surveying profession of their own.

If quantity surveying is to make its proper contribution, it means showing how to use construction resources more eco-

nomically and to see that the financial management of building is efficient.

We put a 6-point programme to the Americans:

1. Cost limits and budgets
2. Independent cost advice
3. Cost planning
4. Cost control
5. Procurement—tendering and contract
6. Cost feed-back.

To some extent, of course, they cover this. But the effort is diversified and one part unrelated to the other. Thus independent cost advice is poor (or so we were told), because those giving it have no control of the feed-back. Cost estimates tend to be telephonic operations to sub-contractors rather than mature judgments based on skill, experience and cost data. This means that the basic data available to contractors is not presented to clients and designers in terms suitable for them. Client programmes (briefs) and design solutions are, therefore, less influenced by cost information than they need to be for economical building.

Almost everywhere we found a need for independent cost advice acknowledged. What had not been realised sufficiently was that it would be neither independent nor effective unless it was linked to basic cost data at source through

the documentation used in procurement of building.

We had many questions on the bill of quantities, or quantity survey, sometimes construction survey, as it is known there. The most important concept we had to establish was that of the measurement of work as fixed rather than quantities of materials and hours of labour. Or in other words, the idea of client orientated measurement rather than production orientated. Will they perhaps not accept this and go straight into operation bills? What an opportunity for Skoyles in such uninhibited virgin territory.

Americans are obsessed with what they are charged for anything. What would it cost them to hire us? What are your liabilities if you get it wrong? Who appoints you? These were the commonest questions at our meetings. Or put another way, we won't have your profession however good, if it costs too much. Two per cent for a \$2 500 000 project, 30-40% of architects fees, did not appear to raise eyebrows. But we were much more closely questioned on our liabilities and our professional indemnity policies than on, e.g. our cost planning techniques. A quicker response to negligence or alleged negligence could make indemnity policies very expensive for anyone operating in the US.

Probably our most sympathetic audiences were architects and those from universities. Of course, we may only have met those architects sympathetic to the concept. Who would come to a meeting to discuss quantity surveying, if they did not feel favourably inclined to start with?

'Architects know they have to rely too much on contractors for their own good and their clients.' And they realise that designing within a cost constraint like any other constraint is not necessarily damaging to their freedom of expression anymore than designing on poor soil, to high densities, or to cope with fire regulations.

We specially stopped off at Indianapolis to talk with Purdue University. They are interested in the quantity surveying dis-

Tony Brett-Jones



Brian Drake



Chris Meyer



Alastair Fisher



Alex Trimmer



discipline and may start a degree in it. It will be excellent, if they do, but the effects of native quantity surveyors on the American scene will not be felt until the 1980's, such is the time scale for educationists.

Much more relevant to the immediate future is the public sector. The need for the quantity surveying discipline is perhaps greatest there and the examples of the British schools programme 1950-1970 is very widely acclaimed. The contribution quantity surveyors made to it is noted. If Federal Agencies can be persuaded of the value of development programmes as being one of the soundest foundations for efficient building programmes for schools, hospitals, and housing and other social building, then it seems inevitable that they should require the quantity surveyor's skill. With such a lead operations in the field for consultants will become both easier and essential.

In the GSA (American equivalent of MOW) one assistant commissioner told me they had no difficulty in setting a cost limit. Their problem was, he said, cost controlling to that limit. With respect, I suggest that you cannot know whether you have set the 'right' cost limit unless you can cost control, for without control you will never know whether the limit is too low and, therefore, impossible to fulfil or not. In any case, economical building does not only mean economical design solutions to expensive briefs, but economical briefs too. Only then can tight yardsticks be set.

In the private sector, perhaps the prime funds need us most. Lending money at fixed interest rates, long term as many of them were, is not the best formula in an inflationary situation. But unless they can opt for doing it themselves, as many of ours do now, they are powerless to insist on a share in the equity when there is plenty of money available as happens to be the case at present. But it is not only the quantity surveying skill that is weak and diversified in the US. The surveying profession as a whole is not as strong, well educated and available on an independent basis as here. Successful development requires the land eco-

nomist as well as the building economist. Finally, let us remember that if the US accepts the quantity surveying profession it will be more because the profession itself has changed so much over the last 20 years, not because Americans have changed. However, Americans are not stubborn or prejudiced. Many times in discussions they would give way on points—surely not always through politeness. I believe they may more easily try new procedures than we would. Yet herein lies the dilemma for us. If they do try and it falters at first, they will not persevere as we might. And what a lot can go wrong. Strange customs, lack of local knowledge, the tremendous pace in which everything is done militate against success in a profession which relies on historical data, experience and practical knowledge as its raw material.

Those two weeks have given me great faith in the contribution the profession should make. In fundamentals it was well tested in argument and emerged almost unscathed.

This is not to say that the Americans will follow our procedures exactly in spite of the fact that the Japanese have translated the whole of the Standard Method of Measurement of Building Works into their own language recently. But there will have to be an organised method of measurement. And one will not get far without some sort of standard form of cost analysis. But it is the acceptance of the principles, and our '6-Point Programme' was intended to indicate what these are.

What about the follow up? Yes, we shall have to go back. And I would not mind at all having the same team which is saying a lot when one is under pressure for two weeks. Ideally, it should be a combined RICS/Private Practice/Public Service operation as this was. Private Practice and Public Service in many professions, but particularly quantity surveying rely much on each other in this country. But in another country, particularly a highly developed one like the US, a much greater impact will be made if they can operate together there. But some high level discussions will have to take place here, if that is going to be possible.

Indianapolis as a typical Mid-Western City, if so Mid-Westerners are to be pitted since it seems to be surrounded by a 30-mile ring of hot dog stands, used car lots, filling stations and assorted tat, all of the most tawdry and gimcrack construction. Even a State as beautiful as Virginia cannot escape the out of town shopping centre which is not only visually disastrous in itself but also attracts a large and motley collection of surrounding 'development' which appears to be almost totally uncontrolled.

There is no doubt that the United States has great tactical skill; the Detroit assembly line is clearly very efficient, the out of town shopping centre certainly provides the goods, the American architect, though politically weak, is beyond doubt more productive than British architects, the building industry can indeed build quickly.

But one is constantly forced back to the strategic questions—should they be building cars and urban motorways and out of town shopping centres? It would be foolish to pretend that Americans were not asking these questions themselves but one's impression is that the constitution provides so many checks and balances that effective action is very slow indeed. For example, New York gives every appearance of being on the verge of bankruptcy, the streets and pavements are potholed and broken, the city is ankle deep in litter, the subway and taxicabs are filthy. This is largely due to an inadequate local tax base, a state of affairs which has been identified and corrected far more quickly in Britain than in the USA. Similarly, the correction of social deficiencies is being tackled on a totally inadequate scale—the Chicago Housing Authority owns less than half the number of houses owned by the Scottish Special Housing Association and has a programme only half the size of the SSHA's which is itself supplementary to the principal public housing effort in Scotland for which local authorities are responsible. Meanwhile, women are not allowed to walk alone on the campus of Chicago's principal medical school after 3.30 p.m.

No reliable cost control

On the specific purpose of our mission it was clear that the USA has only a poorly developed capacity for arriving at a realistic budget for a capital project and that there is no reliable method for controlling the development of designs within such budgets. These deficiencies were readily admitted and admiration for quantity surveying techniques was frequently expressed. However, it would be well not to be carried away by the courtesy and friendliness of our hosts—there is an immense difference in attitudes, social and technical structures and political realities between our countries and quantity surveying techniques would have to undergo a sea change to become acceptable in America. For all that both quantity surveyors and the British building industry generally ought to maintain close links with the USA, not least because of the valuable lessons we can learn. It is perhaps worth asking what lessons these might be.

First, the awful warning. We must clarify our economic and social objectives in order to avoid being swept along in undesirable directions by technical or

BRAN DRAKE FOR THE PUBLIC SECTOR

America! America!

Brian Drake is Chief Quantity Surveyor, Scottish Development Department, Edinburgh. Chairman of the Management Committee of the RICS Building Cost Information Service. Experience as a quantity surveyor in private practice, local government and the civil service (including the former War Office, and the former Ministry of Public Building and Works—now Department of the Environment—Research and Development Department).

Scale, diversity, quality, squalor, tactical skill and strategic bankruptcy; these are the impressions which remain sharpest in one's mind (and one is conscious of writing with all the authority of 15 days first hand experience of the United States).

The enormous scale of the United States

is probably sufficient in itself to account for its diversity, nevertheless, one was unprepared for the contrast between the slow pace and charm of Washington and Virginia, the excitement of Chicago, the provincial quality of Indianapolis and the brutality and vigour of New York. The quality of driving manners seemed a good index of general atmosphere: in Washington driving is mature, easy paced, relaxed, courteous; in New York it is thrusting, aggressive, noisy and utterly pointless, which may not be a totally inaccurate description of New York itself.

There is certainly a great deal of work of high quality in the United States; but there is also the most wretched squalor, physical squalor in the ghetto areas which are worse than even Glasgow can offer and visual squalor almost everywhere. A number of Americans described

financial forces; specifically we must control the motor car and we must control land use much more effectively than we are now doing.

Second, the shaming example. We ought to borrow some American self-confidence; we should certainly be studying ways of increasing our social fixed investment as a prime instrument for the creation of good morale. In doing so, we might use the American technique of selling bonds, the interest on which is tax exempt, for the construction of social projects. Certainly millionaires escape tax by this procedure but at least it gets their money into schools and hospitals and avoids our dilemma of being unable to finance social investment because of resistance to tax increases.

Third, the shaming comparison. It would appear as though the American construction industry has much higher productivity than our own though whenever we attempted specific, if crude, comparisons such as the number of bricks laid per hour, the results seemed very simi-

lar to British practice. My personal view is that there is a *prima facie* case for saying that part of the explanation lies in the inability of the British architectural profession to produce drawings and information on time together with its predilection for variation orders. The American contractor knows he will get a straight run at a job, the British contractor has no such confidence and prices accordingly. The bill of quantities as such is not the cause of this situation but in so far as it permits sloppy design practices we ought to consider what reforms are required.

The skyscrapers stand proud
They seem to say they have
sought the absolute
and made it their own.
Yet they are blameless, as
dumb steel and the dumber
concrete of their bastions.
"Man made us" they murmur.
"We are proud as only man is
proud, and we have no more
found the absolute than
has man.—Carl Sandburg.

CHRIS MEYER FOR THE PRIVATE SECTOR

No place for the faint-hearted

Christopher Meyer is Senior Partner of a list of chartered quantity surveyors with offices in Westminster, London; Canterbury, Manchester, Sheffield, Scunthorpe and Edinburgh, and overseas offices on the Continent of Europe, Africa and the Middle East and Australia. Mr. Meyer is a member of the RICS International Committee and was a member of the Quantity Surveyors Committee for some years. A member of the British Consultants Bureau.

The US construction scene is confusing and confused. Confusing because of its basic unfamiliarity to UK eyes and confused because of the complicated interplay between Federal, State and Municipal Government.

The grass roots of the American way of life demand that Federal Government and State should be seen and not heard. Community enterprise abounds and development often starts at this level upwards rather than from Federal level downwards.

Hospitals and schools are often financed through local bond issues. In New York recently the citizens were voting on whether to have a transportation bond issue to improve the subway. This bond issue was voted down as the electors were not satisfied that the last issue for the same improvement had been effective. The interest charges would, of course, have to be financed through local taxes. The charges on the subway may well increase from 30 cents to 45 cents as a result of the bond failure.

Annual housing needs

Federal participation in housing schemes is not always seen. Land may be purchased at one price and sold to developers at a much reduced price. Mortgages may be guaranteed or the true interest rate of mortgages substantially reduced from say 7% down to 1% over a 40-year period. The US needs

approximately 2.5m housing starts a year. One of the dominating factors in the lives of professional and managerial people is University education. Although plumbers earn sometimes \$20 000 a year, most families try to send their children to college. When the children graduate they may only earn \$10 000 as junior architects or engineers, but the sacrifice is made. The cost of sending a youngster through a four-year bachelors course may be between \$4500 to \$6000 a year. The lower figure applies if the University chosen is in the State where the youngster lives. Usually grade (primary) and high (secondary) schools are free, but college education has a severe impact on most middle income American families.

Free enterprise

Free enterprise is the watchword and the public and private sectors of the construction industry have no sharp divisions. With the possible exceptions of housing, most projects are in the hands of private architects as distinct from architects in the public sector. Cities which have architectural departments may well have set up such projects rather than promote low cost housing. Before condemning such an attitude, it should be remembered that the architect's fees are about 6%, but have to cover the fees of both types of engineers, preparation of contract documents and supervision-in-chief. We may well ponder here before summarily dismissing the situation as irrelevant because of the difference in building costs. So indeed is the cost of living. American professional men have a highly developed commercial sense—they have to. Many firms employ public relations companies or even 'in house' PRO's. Political motives play an important rôle as far down the scale as the local community centre or primary school. Professional men cannot stand aloof and take detached views. Whilst architects may incorporate their

firm they cannot limit their liability. Suing architects has become a real problem and if a workman is killed or injured, the architect may find himself being sued on the grounds that he did not exercise proper supervision of the project.

It is not possible to write about the American scene without mentioning the unions. Their strength varies from city to city, but in New York they are extremely strong and it is quite common for a building owner or architect to discuss a project with the unions well before it is due to be constructed. The co-operation of the unions on any project is vital. In Kansas City important projects were held up for six months and the same thing happened in Miami recently. Union funds are very buoyant and it is quite usual for them to be used for prestige construction projects.

Having outlined some background impressions it is perhaps time to write about the nuts and bolts of quantity surveying. It is quite untrue to say there is nobody exercising the functions of a quantity surveyor. There are several specialist firms with large staffs preparing budget estimates and cost planning. They seldom have any function in connection with contract documents and post-contract work. Their origins are assorted: engineers; specification writers; estimators; management consultants. Their efforts are sporadic and the results uneven. This may not be their fault if they are not being used properly.

The need for persistent cost advice and financial planning and control is generally recognised, but the means of attaining this are controversial.

Contractor-managers

In the last few years the contractor-manager has gained in importance. These firms, amongst whose names are some of the most influential in the United States, undertake project management for a fee of 2% in some cases. They organise the letting of sub-contracts and control the programming and the cost. Where they work for a fee, they may have no direct involvement with the construction process, but act as advisers and organisers. In other cases they may undertake a portion of the construction work.

What are the opportunities for British chartered quantity surveyors? The first obstacle to overcome is the conception that quantity surveyors are measurers and counters of bricks. This view came up during our visit with depressing regularity. There is quite a public relations job to do here. Second, the Americans are proud of the system they have evolved in the construction industry and would need to be convinced that any advice or procedures we possess have a relevance to the American scene. Whilst there is general awareness of the need for cost planning and cost control, it would have to be proved that chartered quantity surveyors are the best people to handle these matters. Our reputation in other parts of the world is not sufficient. It may be easier to convince Government than private developers whose activities are often interwoven with those of the larger contractors.

I am sure we have a great deal to offer, but it will require the perseverance and attention of first rate men to make inroads into this vast and exciting arena.