

# THE PHILLIPS REPORT ON BUILDING 1950

**Alan Wild**

*University of Centre England Business School, Perry Barr Birmingham B42 2SU, UK*

The article reviews and interprets the “Phillips Report” of 1950 the first “post war” report on construction. This reviews attempts to realize aspirations and plans for reconstruction derived from the Simon Report(1944) and the climate of “planning for post war Britain” (Simon 1945). Phillips is a ‘Discourse of Hope’ based on the experiences of a group of ‘Keynesian planners’ from the public and private sectors who collaborated within the wartime value consensus. Phillips shows that by 1950 the context and practices of construction had begun to diverge from their assumptions. The discourse evolved until Crichton (1966) but relied on: an assumption of the manageability of construction established in Phillips and reflected in attention to the supply rather than demand side; and a concept of contracts let in a setting of collaboration facilitated by extensive but unrealisable degrees of information. Phillips is compared to Emmerson (1962), one of a set of reports and research which attempted to develop the concept of planning and assumption of manageability in the face of changes in construction. These split the theme of contracts, (Banwell 1964), and communications, (Higgin and Jessop 1963, Crichton 1966), which dominate official reports since 1944; communications signifying problems of co-ordination.

Keywords: communications, contracts, management, planning, Phillips report.

## INTRODUCTION

Post war attempts of government to influence construction appear as an archaeology of reports from Simon (1944) onwards. Phillips (1950) is referenced by Gorse et. al. (1999) who contend that ‘communications’ is a continuous concern in construction. Phillips refers to co-ordination problems without mentioning communications. The first realistic view of communications in construction is the Building Industry Communications Research Project (Higgin and Jessop 1963, Crichton 1966). Elsewhere communications signify co-ordination. Reports reveal more reports. Phillips refers to the other Simon Report: The Distribution of Building Materials and Components (HMSO 1948). Current reports select from this history of official concern those past reports with which the metropolitan great and good fronting up inquiries are familiar. Emmerson(1962), Higgin and Jessop(1965) and Banwell(1964) refer to Phillips; Latham(1994) does not. Do these reports repeat past concerns and anticipate future problems? Latham (1993) comments:

“...this interim report does repeat and reinforce some guidelines for good practice in the construction process which have long been advocated but are by no means being followed. It has been a depressing experience to re-read previous reports to the Government including those of Sir Harold Emmerson (1962) and the Banwell Committee (1964). Many of the problems which they tackled still persist...”

Is there a continuity of assumptions within the sequence: a conventional wisdom (Boyd and Wild 1999) in any given report and it’s recommendations? Does this reveal “... the ideas in good currency...”(Schön 1971) from particular historical contexts

transported in as putative solutions to currently assumed 'problems of construction'? Are there continuities between the reports in which problems and solutions are recycled in different forms with similar unresolvable content? Do the problems of construction yield to rational inquiry at all?

The paper is part of a demonstration that construction as 'non-recurrent and 're-configurative' is unmanageable in conventional terms and hence recalcitrant (Reed 1989) to official prescriptions. The critique of "Techniques of Communication" also presented at ARCOM 2001 is part of this argument. This will be developed in further papers reviewing: attempts to sponsor a management education movement in construction in the 1950s; to establish a management college for building in the 1960s; government reports on industrial relations in construction and NEDO reports during the 1960s.

The perspective adopted will be that by the 1960s there existed 'a general crisis of construction'. This is a 'rewriting of history' justified by the writers belief that official prescriptions have resisted a more complex model of managing setting the scene for an insufficiently critical research effort: "...commoditized and simply opportunistic, taking advantage of the funding available and providing the necessary comfort for funders in terms of descriptions that (at least superficially) fit the policy vernacular..." (Connaughton 2000).

## **AIM, OBJECTIVES AND METHODOLOGICAL PROBLEMS**

The paper aims to provoke a debate about how well the sequence of post war reports is understood. The objectives are to: summarize the Phillips Report; identify common themes which are dispersed through the report; infer from the common themes the assumptions of the report; evolve a critique of those assumptions and identify related problems of construction from Emmerson (1962).

The methodological problems are those of criticizing a text. Phillips seeks to induce improved practice in construction. This putative practice is aligned to concepts of scientific management interpreted as a set of methods of formal investigation of a production process designed to improve the material or technical efficiency of that process. These are "... the ideas in good currency..." (Schön 1971) about management to be adopted in building. The emphasis on building should be noted as Emmerson reports on "...the Construction Industries..." (Title page 1962).

Phillips constitutes an "...espoused theory..." seeking continuity as "...a theory in use..." (Argyris and Schön 1978) for production of the constructed world. This discourse is tested by comparison with Emmerson, whose qualitative inquiry (*1 and 2*) provoked further research directed at adaptation of the planning metaphor to it's evolved context. He comments on the problem of contracts: "Experience shows that exhortation is not enough." (40) Phillips conclusions and recommendations have been summarized; cross-cutting themes identified; ideas in good currency, difficulties and contradictions are highlighted. Specific paragraphs are, and have been already, indicated from Phillips (in bold) and Emmerson (*in italics*).

## **THE CONTEXT OF PHILLIPS**

In 1948 Building and Civil Engineering accounted for 58% of gross fixed investment. Phillips political context is a new Britain of factories, hospitals, houses and schools: construction was a physical manifestation of a context of popular expectations. The report is a product of it's time and assumptions of what was achievable. Phillips

continues the wartime consensus between trades union officials, industrialists and academics: "...a common doctrine and outlook, a readiness to use the same methods and to move towards the same conclusions, and a will to cooperate."(Taylor 1971)

Simon (1945) reflects awareness of the problems and contingencies of planning in construction: "The aim of this book is to try to make clear what are the conditions under which an outstanding success can be achieved..." It is argued that these assumptions about planning reflected the career cycle of the planners as carriers(Weber 1923) of an ideology and Phillips constitutes a first attempt to adapt this ideology. Official committee membership was and is a part of such career cycles . Hence the appeal to leadership (71) is an appeal to the metropolitan network from which the committee was drawn. In reality the committee was appealing to itself! Did this mean that the social ground had moved beneath Phillips more than the members realized; for example in the case of the operatives? If we are to appreciate post-war construction more critically would contextualist analysis(Pettigrew 1986) of all the reports be useful?

Emmerson(1962) comments positively on the post-war performance of construction:

*"Because this study is intended to detect signs of ill-health it may give a false picture. I must, therefore, emphasize most strongly that in a more balanced survey I should wish to pay tribute to the remarkable recovery of the building materials industries and the construction industries from the war period when they were practically closed down; their flexibility in meeting new demands on their services in the past fifteen years; the introduction of new materials, increased mechanization and new techniques; the steady rise in output, and the avoidance of major industrial disputes."*(4)

Fourteen years separate the inception of Phillips and publication of Emmerson. Hence the performance Emmerson endorses may have resulted from not adopting Phillips' recommendations. These may represent an inadequate interpretation of construction whose marginal problems later moved centre stage undermining proposed solutions.

## **ORGANIZATION, SUMMARY AND RECOMMENDATIONS OF THE PHILLIPS REPORT**

Phillips' terms of reference are: "To inquire into (a) the organization and efficiency of building operations in this country, including those of the specialist and subcontracting trades; (b) the position of the professions in relation thereto; (c) the arrangements for financing operations; and (d) the types of contract in general use and to make recommendations."

A series of outline statements are developed filling out the detail of what should and should not be done as a consequence of the slow recovery in productivity resulting from wartime. These future aspirations are partly based upon past trends and educated guesses as to what could work given the committee's experience as metropolitan nominees. The critical factual description is of the effects of war on construction and it's efficiency in 1949 compared to 1939(39-57). This follows a description of the state of building and it's participant organizations and manpower (1-38). Much of the description focusses on operatives who experienced the largest degree of disruption.

Productivity in 1946 and 1947 was two thirds that of 1939 and by the end of 1948 three quarters. Lower productivity, higher wages and material costs meant that

building costs were about two and a half times higher. The fall and rapid increase in the labour force; the dislocation of management; the over-optimistic building programme and its subsequent revision; the delays and uncertainties induced by shortages and controls; the compulsory use of untried materials and the inflationary condition of the economy were responsible. These were temporary and were improving. Two new factors affected efficiency: full employment had abolished the previous reserve of unemployed labour and planning controls induced uncertainty and delays, creating difficulties for preplanning of work (54-56). Cost inflation raised prices by two and a half times their 1939 level. Labour costs rose 2.8 or one third of the increase and materials costs by 2.2 or almost half the increase; overheads plus profits stood at almost three times the pre-war level or 20%: "... in order to keep the matter in due perspective it should be remembered that they are not out of line with those which have occurred in industry generally."(43).

Conditions for improving efficiency are prescribed as the: importance of co-operation; pre-planning of work and use of new technology; application of scientific management and efficient organization and dissemination of research. The "Layout and Personnel of the Building Industry" provided flexibility and the variety of capacities required but greater craft flexibility would help. Training for all categories required improving including of architects in practical aspects of building. The size, scope and complexity of public procurement implied the centralization of technical advice in one government department(72-89).

Building registration should be restricted to plumbing and electrical trades and the NHBRC scheme is valuable(90-92) . Direct labour should conform to government guidelines(93). Contract arrangements required that full working drawings for take off of Bills of Quantities should be provided before contracts are let. Public procurement should be on a standard contract. Nominated subcontractors should not proliferate and be appointed after competition for a subcontract pre-designed by a consultant(96-108).

The management of building operations required full advance knowledge of the operation leading to a programme of work and careful site planning. These included supply of materials and tools, correct balance of operations and all other respects. The progress of work should be compared periodically with the programme and necessary adjustments made. Work Studies could assist management by reducing the amount of wasted time (110-120). Incentive pay schemes were "...essential if output is to be adequately increased"(122-131) . Joint Production Committees are valuable and "...adequate safety and welfare facilities are an important means of securing production"(132-140). Establishment of appropriate costing systems was essential (141-145). Careful use of new materials, more generally economical use of materials, prefabrication of interiors and sustained support for standardization would assist productivity (148 -155). Mechanization and the extended use of power tools are essential if output is to be adequately increased (157-158).

## **THEMES AND WEAKNESSES OF THE REPORT**

### **Segmentation as a weakness of the report**

Problems are segmented: some belong to management, to employers, to designers and consultants, government and operatives. The discussion of labour typifies a reluctance to acknowledge inter-penetration of problems underlying aspirations of manageability which conflict with evidence.

### **Certainty and manageability**

The outstanding theme is an aspiration that certainty is available and hence construction is manageable. The work is replete with assumptions of optimization and improvement through functional rationality and formal methods: advance knowledge, rational planning and Scientific Management; work study, costing and incentives; project scheduling and operational research. The rationalization of contract arrangements and standardization of controls and planning regulations are attempts to reduce disturbances and uncertainties surrounding procurement. Collaboration and flexibility are invoked as a pre-condition for optimization and hence improvement. What is rational is uncontested. Collaboration is invoked through appeal to a virtuous circle of collaboration and rationality. This is a discourse of manageability.

### **Contracts**

This section continues the search for certainty. Contractors require full working drawings to derive Bills of Quantities, establishing accountability to the client as improved costing systems establish accountability and future cost planning for the construction process. Simon is endorsed in relation to contracts but there are problems to be resolved by: a standard contract for public procurement; non-proliferation of nominated subcontractors appointed after competition for a subcontract pre-designed by a consultant, but let by the main contractor. Design by nominated sub-contractors mitigated against: comparison of costs affecting, efficiency and life-cycle costs and competition. Such design involved unavoidable costs for the owner who should employ a consultant. The RIBA contract is adequate and minor amendments unnecessary. The NFBTE threshold of £1,500 on competitive tendering through bills of quantities for contracts was too low and should be considered by the JCT (96-108).

### **Conservative treatment of the professions and co-ordinating bodies**

The role and legal status of professionals and consultants is not challenged. There is an appeal for the spanning of boundaries and collaborative education but for future practitioners despite current problems. While the discussion of incentives for operatives includes unstated motivational assumptions of economic rationality the motives of the professions are bypassed as a problem. The leadership role of the designer is unchallenged (30-33). Stability of professional values is assumed. Architects established a legal monopoly on design only in 1931. Were post war conditions more favourable than pre-war to the vigorous pursuit of that monopoly? Co-ordinating bodies are adequate for their purpose (34 -38).

### **Clients**

Clients are dealt with discontinuously. The importance and success of strong clients in recovering productivity is hinted at .” London County Council have claimed that on certain of their Value Cost Contract sites where incentive schemes are operating, they have regained their 1939 level of productivity, but this experience is exceptional.” (41) Otherwise they are discussed to illustrate the advantages of planning, although uncertainty in clients appears to be increasing: “...lack of decision and failure to supply fully informative drawings and particulars are increasing.” The cost of these variations added to inefficiency (84). Clarity and certainty of the client aid complete architectural planning. Complete drawings should be available to the builder and the client must avoid changes(110-112). This is contrasted with the USA where complete preplanning by owners and architects was available(187) . Public clients combine the functions of owner and architect quite differently from ordinary building owners for a vast amount of building work. Co-ordination would provide clear leadership to diverse

approaches to construction and the implications of research for public procurement. The wartime Ministry of Works assisted this "...but in our opinion the concentration of these functions has been allowed to fall short of the point at which full advantage would be reaped." Technical advice should be centralized (89).

### **Operatives**

Figures for the structure of employment pre and postwar and in wartime show that the workforce halved due to conscription and other effects. From July 1939 to July 1948 Building and civil engineering lost 230,000 operatives including 63,000 semi-skilled: a key constraint post war. Skill composition shifted. Specialist firms remained about the same numerically but electrical contractors doubled in number from May 1945 to 1949(14) indicating the role of electrification in post war modernization.

Post war full employment and the enhanced political standing of the unions insulated pay from discussion and it was outside the terms of reference. The report recommends strongly the introduction of incentive schemes to remedy the fall in productivity. These would allow bypassing of this constraint. Welfare and site facilities were now incentives to which management must adjust. Allen states (appendix G: 1) : " ... a high margin of unemployment provided both a means of solving the organizational problems of the industry and also a disciplinary sanction." Indeterminacies were off loaded on to labour where high levels of elasticity of supply guaranteed flexibility. From 1924 –1939: "...unemployment was always present and often very serious"(25). Post war, operatives, radicalized by conscription, faced excess demand for their services in an industry evolving technically by adopting new materials, components and methods. Problematic new expectations are wished away as an attitude problem of a minority:

*"...disposition towards ...work was formerly affected by (a) sense of responsibility on the one hand and by ...fear of losing (a) job on the other. The security which the building operatives have enjoyed since the war has certainly tended to reduce the efforts of those among them who were formerly kept up to the mark by fear of unemployment."*(52)

Full employment required "...substitutes for the harsh pressures which were once exerted by unemployment" including incentive schemes, craft interchangeability, better co-ordination of labour as jobs closed and opened (56) and the right spirit of co-operation. "There is ... a long tradition of service in the building industry and we believe that this will not be appealed to in vain. There is no general formula for improving morale except good leadership. It is a primary function of the representative organizations ...to provide such leadership." (71) .

### **Supply-side solutions**

Supply side economics dominates solutions: training including commonality in architectural and management education; the availability of materials and components; technical innovations and organizational innovations derived from scientific management. These are left to employers and a corporatist co-ordination of innovations, regionally or nationally. It is not readily apparent why this emphasis should have been made given difficulties among clients or labour.

### **Desirable futures**

The desire to abolish variations clauses and the example of the USA indicate aspirations for certainty in Phillips' view of the future:

Variations clauses reflect the uncertainty of post-war construction. Inflationary conditions, influenced by shortages, had undermined competition in building materials. Variations clauses had "...sheltered the contractor from some of the main risks to which his business is normally subject in consequence of changes in prices of materials and wages." This had been exacerbated by: failure to pursue incentive schemes (53); the apparent and regrettably increasing uncertainty and incompleteness of information in the client; the cost and inconvenience of variations (84) and lack of standardization of public contracts. Cost Variation Clauses for materials and labour "...are no doubt essential, if undue margins for risk or gambling on price movements are to be avoided. It is clear, however that as soon as conditions become more stable these clauses should disappear"(103).

USA construction is characterized by energy and vitality in terms of attitude to work. There is complete preplanning by owners and architects and more efficient organization of contractors and subcontractors. Specialization is more extensive due to de-skilling of crafts and more efficiency and skill of specialists. Professionalization is less rigid with greater concern for clients and interchange of staffs of contractors and architects. Site supervisors are well educated. Site facilities and services allow greater mechanization. Standardization is widespread (187-188). There are "...elements of uncertainty which are probably inconsistent with the full adoption of the American practice of preplanning; but we think there is - and in pre-war days was - a great deal of room for improvement here in this respect" (71). Pre-war, firms offloaded indeterminacy onto labour which obviated any need for costly managerial planning systems. These remained to be developed post-war creating an attitude problem among employers towards planning.

## **COMPARISON WITH LATER REPORTS**

This is restricted to Emmerson but continuities and discontinuities can be shown. Discussion of contracts justifies a separate article as does BICRP which splits contracts and their problems from the analysis of inter-organizational relationships and project dynamics, treating 'communications' non-prescriptively for the first time. Emmerson shifts the emphasis away from "Building" to the "Construction Industries", making 18 direct or indirect references to Phillips. This is hardly surprising. He was Principal Secretary in the Ministry of Public Building and Works from 1944-1955 and previously Deputy Director General of Manpower in the Ministry of Labour and National Service.

A startling knowledge gap emerges: there is "... no statistical measure of efficiency in the construction industry as a whole." Quarterly statements of the value of work are "...a useful guide to trends in the volume of work done but it would be wrong to regard them as an index of efficiency."(5) How could Phillips recommendations have effect as a planning approach under such conditions of uncertainty?

The "three Cs": clients, contracts, and co-ordination reflect thematic continuity. "Perhaps with a stronger interest from the building owner, who has to pay in the end, progress would be quicker. What is made clear is that if efficiency is to be increased, procedures and relationships must be improved..."(23). Fragmentation and uncertainty in clients must have grown since Phillips(75-88). The importance of the Public Client and the Public Interest in greater efficiency remained. Contracts were to be dealt with by Banwell and co-ordination by the Tavistock researchers of the BICRP under the signifier of 'communications' and the auspices of the NCC: "One

result of my survey might well be an examination by the National Consultative Council of ways in which its usefulness could be extended and its authority enhanced.”(Emmerson: 88, Higgin and Jessop 1963). The NCC represented the professions and large firms hence Emmerson operates within the existing corporatism. Banwell and BICRP inquire into criticisms at “...the lack of cohesion between the various parties involved in building operations...In no other important industry is the responsibility for design so far removed from the responsibility for production.”(22 - 27): a traditional concern.

Phillips (122-131) recommendations on incentive pay were unrealized. Official figures indicate that 14% of operatives are on incentive schemes compared to 42% of manufacturing. Other payments proliferate: “...the many practices of extra payments adopted by individual firms in conditions of labour shortage.”( 62) . Firm price tendering (103) had arrived in April 1957 subject to conditions: “...one that the work was thoroughly planned in advance, and the other that the estimated contract period should be not more than two years.” This had been successful where the conditions had applied (33) . Professional and management education are still pre-occupations (28) referring to Phillips(74) on joint education. Emmerson refers to the Noel Hall inquiry into the establishment of a scheme of joint education for construction; a 1956 BIM joint study and conference with the Board of Building Education under the chairmanship of Sir Hugh Beaver, Emmerson’s predecessor at the Ministry of public Buildings and Works; and a London and Home Counties Regional Advisory Group study and report from 1957 (64 and 65) . Research became the focus of a separate report(Woodbine Parish 1964) which destabilized the BICRP(Crichton 1966). This lead to the establishment of the BRE from the existing Building Research Station and BIRA, later CIRIA, from the Civil Engineering Research Association reflecting continuity of Phillips’ (172) concerns about dissemination of research.

## CONCLUSIONS

The overall weakness of Phillips is an aspiration to coherence in a national building system which, given labour market changes, growth of client uncertainty and technical change was unrealisable in 1950. This false coherence was understandable given the origins of the committee in the world of wartime collaboration and planning. Simon assumes the attainment of sufficient stability around the project to make the contract work. Phillips shows that this has not occurred with uncertainties accumulating from a number of sources. Emmerson summarizes the changes, revealing where Phillips fell short. Yet continuities exist in the attempt to evolve the basis for corporatism. Emmerson and his colleagues fell away with time as did their form of government sponsored corporatism. Today this is subcontracted to a network from the large metropolitan organizations who previously dominated the process.

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