Summary

Tapio Wirkkala

Poires électriques comme éclairage (page 344)

Depuis Edison qui inventa la poire électrique, les lampes ont presque toujours gardé la forme de «poire». Tapio Wirkkala a osé changé cette forme devenue traditionnelle. Les «poires» de Wirkkala servent en même temps de lampes et sont traitées particulièrement. Remplies d'un gaz particulier elles ont une durée d'éclairage de 1500 heures. Une poudre blanche répartie sur la paroi intérieure de la lampe permet une luminosité beaucoup plus grande que les poires courantes.

Arne Jacobsen

Collège Sainte Catherine à Oxford (pages 345—346)

200 garçons étudient dans ce collège composé d'une section sciences et section classique. Le terrain de l'édifice est de 315 ares et le coût de l'édifice sera de 1.000.000 de livres sterling environ. 292 chambres, 46 appartements et autres sont destinés aux étudiants et aux maîtres. La disposition et la construction du bâtiment sont claires.Notons que la reine même a inauguré le chantier.

Léonie et Charles-Edouard Geisendorf

Centre d'éducation des professions féminines à Stockholm (pages 347—353

D'importantes réformes de l'enseignement suédois ont obligé la ville de Stockholm de prévoir deux grands centres professionnels destinés aux arts ménagers, et ceci aussi bien pour les jeunes filles que pour les jeunes gens. Les deux centres en question enseignent également les arts et techniques de l'industrie textile, de la restauration, tourisme, transport etc. Un enseignement de ce genre n'ayant de sens que s'il est à même de s'adapter continuellement aux besoins de l'économie publique, les salles d'étude et de démonstration doivent nécessairement être très flexibles dans l'usage. Le programme extrêmement varié du centre en question comprend:

1. L'école centrale des arts ménagers.
2. L'école centrale des arts textiles.
3. Aula avec scène pour 350 personnes.
4. Halle de gymnastique.
5. Jardin d'enfant pour 60 enfants.
6. Centre de démonstration pour adultes.
7. Halles d'exposition.
8. Centre administratif municipal de l'orientation professionnelle.
9. Salles à manger avec cuisine (Capacité de 2.000 repas par jour).
10. Internat pour 50 étudiantes, différents appartements pour le personnel.
11. Services annexes (chaufferie, parking, etc.).

Les surfaces utiles nécessaires furent projetées dans une maison-tour pour des raisons de place. Les élèves ayant au moins 14 ans révolus la question des ascenseurs n'offraient pas de difficultés particulières et de plus, la solution «en hauteur» était la seule possible.

La solution choisie étant très concentrée, la place suffit tout juste pour y loger terrains de jeu, cours d'école, etc. Malgré une organisation peu courante, la disposition des différents secteurs et des salles communes est excellente.

Friedrich Wilhelm Kraemer

Gymnase complémentaire — école du soir — à Dortmund (pages 354—358)

Le perfectionnement toujours plus grand de l'enseignement moderne n'est pas fait pour diminuer le coût de nos écoles. L'enseignement en petits groupes, d'une part, l'augmentation des leçons scientifiques, d'autre part, et les progrès techniques, enfin, amplifient sans cesse les besoins de qualité et quantité. Le problème que nous illustrons dans ce cahier représente à notre avis une exception. En effet, l'école en question est utilisée deux fois par jour, ce qui évidemment, peut être considéré comme fort rentable. L'après-midi l'école est utilisée comme gymnase complémentaire, le soir comme gymnase du soir. L'édifice composé de différents bâtiments en béton armé et entourés de verdure comprend en tout 38.000 m³ à 75 DM/m³. La maison-tour d'habitation devant loger 85 élèves environ manque encore.

Summary

Walter Gropius

The role of the architect in modern society (pages 319—321)

I should like to talk about the ambiguous position of the architect in his relation to society and about his double role as a citizen and a professional. I want to point out why he, armed to the teeth with technical intricacies, design theories, and philosophical arguments, so rarely succeeds in pulling his weight in the realm of public domain where decisions are made which vitally affect his interests. Since popular opinion holds him responsible for the condition our cities, towns and our countryside have gotten into, I would like to examine where exactly he stands in this respect and which avenues of action are open to him to broaden his influence.

I would like to add also my reactions to certain "rumbles" in the architectural profession which have interested me as much as they have baffled me. Since architects possess in general a sensitive, built-in thermometer which registers the crises and doubts, enthusiasms and fancies of their contemporaries—we should listen to the notes of misgivings, warning or satisfaction emerging from their ranks.

All reports, made lately, by architects and educators on the state of architecture in the sixties were dominated by two words: confusion and chaos. It seems to them that the inherent tendencies of an architecture of the twentieth century as they were born fifty years or so ago and appeared then as a deeply felt, indivisible entity to their initiators, have been exploded into so many fractions that it becomes difficult to draw them together to coherence again. Technical innovations, first greeted as delightful new means-to-an-end, were seized separately and set against each other as ends in themselves; personal methods of approach were hardened into hostile dogmas; a new awareness of our relationship to the past was distorted into a revivalist spirit; our financial affluence was mistaken for a free ticket into social irresponsibility and art-for-art's-sake mentality; our young people felt bewildered rather than inspired by the wealth of means at their disposal. They were either trying to head for safe corners with limited objectives or succumbing to a frivolous application of changing patterns of "styling" or "mood" architecture. In short, we are supposed to have lost direction, confidence, reverence, and everything goes.

When trying to take a stand, I would like first of all to extricate myself from the verbal jungle we have gotten ourselves into. What, actually is chaos? One of Webster's definitions is: "A state of things in which chance is supreme." Well, those of us who welcome "chaoticism" may take comfort from the fact that the ancient Greeks considered Chaos to be the oldest god of all times.

Personally I do not feel too fearful of this god, who returns periodically to stir up things on earth, because never in my life-span has the architectural mission looked any less dangerous, less difficult and chaotic to me than it does now. It is true, in the beginning of the struggle the battle lines were drawn more clearly, but the fight was essentially the same: the coming to terms of a romantically oriented, jealously individualized architectural profession with the realities of the twentieth century. It seems to me that the specter of confusion is haunting mostly those who, for a short while, thought they had won all the battles and found all the answers; those who have come by their inheritance too easily, who have forgotten the great goals set at the beginning and find now their equilibrium upset by new developments in the social and technical field.

But let me examine the meaning of the word "chaos" more closely in all its aspects.

With our tremendously accelerated communication system, it has become quite easy today for people in all corners of the world to reiterate the most advanced ideas verbally while being actually unable to catch up with themselves in this respect emotionally. Therefore we see all around us an astonishing discrepancy between thought and action. Our glibness often obscures the real obstacles in our path which cannot be sidestepped by brilliant and diverting oratory. It also creates too rosy an impression of the actual influence architects are permitted to take in the shaping of our larger living spaces. Whether a conscientious and dedicated architect of today resolves his personal design problem in this or that way is, unfortunately, less decisive for the general looks of our surroundings than we are fond of believing. His contribution is simply swallowed up in the featureless growth that covers the acres of our expanding cities. In the last 20 years the U.S. has seen the emergence of an unusual number of gifted architects, who have managed to spread interest and admiration among designers in other countries. But when the curious arrived at our shores to see the new creations for themselves they were overwhelmed by the increase in general ugliness that hit their eyes before they had even a chance to find the objects of their interest in the vast, amorphous display. It is here where chaos reigns supreme, it is the absence of organic coherence in the total picture which causes the disappointment, and not the dilemma between different individual approaches to design.

Having been in the cross-currents of the architectural development for over half a century now, I find that an architect who wants to help mould the evolutionary forces of his time instead of letting himself be overcome by them, must distinguish between two sets of components which are apt to influence and direct his work. The first one consists of the human trends which gradually move a society toward new patterns of living; the second consists of the contemporary technical means and the individual choices of form expression which help these trends to take shape. It is imperative never to lose sight of the first while getting embroiled with the second because the architect is otherwise in danger of losing himself in the design of technical stunts or in personal mannerisms.

The potentialities of the new technical means fascinated my generation just as much as it does the architect of today, but at the beginning of our movement stood an idea, not an obsession with specific forms and techniques. The activities of life itself were under scrutiny. How to dwell, how to work, move, relax, how to create a life-giving environment for our changed society, this was what occupied our minds. Of course we went about the realization of such aims in very different ways, but I do not see why this diversity should by itself cause confusion, except to those who naively believe that there is always only one perfect answer to a problem. There are, of course, many technical and form approaches to the same task, and any one of them may be successful if they are well suited to the purpose of the building, to the temperament of the architect and if they are used with discrimination in their given environment.

The great technical inventions and social developments of the last hundred years which set off such a stream of changes in our way of living and producing, gradually established new habits, new standards, new preferences which have come to represent the unifying trends in today's general picture. Beginning with the discovery of the Bessemer steel and of Monier's reinforced concrete which freed architecture of the supporting, solid wall and presented it with virtually limitless possibilities for flexible planning, there has been a steady movement toward a less rigid, less encumbered style of living and building. The skeleton structures enabled us to introduce the large window opening and the marvel of the glass curtain wall—today misused and therefore discredited—which transformed the rigid, compartmental character of buildings into a transparent "fluid" one. This, in turn, gave birth to a totally new, dynamic indoor-outdoor relationship which has enriched and stimulated architectural design beyond measure. Pressure for ever more mobility and flexibility encouraged the evolution of industrial prefabrication methods which have, by now, taken over a large part of our building production, promising ever increasing precision and simplification of the building process for the future. The common characteristics which clearly emerged from all these innovations are:

An increase in flexibility and mobility;

A new indoor-outdoor relationship;

A bolder and lighter, less earthbound architectural appearance.

These are the constituent elements of today's architectural imagery and an architect can disregard them only at his peril. If related to a background of meaningful planning, they would reveal diversity not chaos.

I cannot accept, therefore, the verdict of the critics that the architectural profession as such is to blame for the disjointed pattern of our cities and for the formless urban sprawl that creeps over our countryside. As we well know, the architect and planner has almost never received a mandate from the people to draw up the best possible framework for a desirable way of life. All he usually gets is an individual commission for a limited objective from a client who wants to make his bid for a place in the sun. It is the people as a whole who have stopped thinking of what would constitute a better frame of life for them and who have, instead, learned to sell themselves short to a system of rapid turnover and minor creature comforts. It is the lack of a distinct and compelling goal rather than bad intentions of individuals that often ruins attempts of a more comprehensive character to general planning and sacrifices them bit by bit to the conventional quick profit motive.

And this is, of course, where we all come in. In our role as citizens we all share in the general unwillingness to live up to our best potential, in the lack of dedication to our acknowledged principles, in our lack of discipline towards the lures of complacency and of material abundance.

Julian Huxley, the eminent biologist, warned recently that "sooner rather than later we must get away from a system based on artificially increasing the number of human wants and set about constructing one aimed at the qualitive satisfaction of real human needs, spiritual as well as material and physiological. This means abandoning the pernicious habit of evaluating every human project solely in terms of its utility ..."

Our cunning sales psychology in its unscrupulous misuse of our language, has brought about such a distortion of truth, such a dissolution of decency and morality, not to speak of its planned wastefulness, that it is high time for the citizen to take to the barricades against this massive onslaught against the unwary. Naturally, the all-pervading sales mentality has also had its detrimental effect on the architecture of our time. Relentless advertising pressure for ever-changing, sensational design has discouraged any tendency to create a visually integrated environment because it tacitly expects the designer to be different at all cost for competition's sake. The effect is disruptive and quite contrary to the desirable diversity of design which would result naturally from the work of different personalities who are aware of their obligations to environmental integration. Here again we see that the forces which cause confusion and chaos originate from the excessive infatuation with the rewards of salesmanship which dominates modern life and which we can influence only in the role of human beings and democratic citizens, but hardly as professionals.

I was somewhat startled, therefore, by a sentence in the recent A.I.A. Report on the state of the profession: "The total environment produced by architecture in the next forty years can become greater than the Golden Age of Greece, surpass the glories of Rome and outshine the magnificence of the Renaissance. This is possible providing the architect assumes again his historic role as Master-builder."

How does this vision compare to the realities of the situation at hand? Don't we need to remember that such highpoints in history came about only when the skill and artistic inspiration of the architect and the artist were carried into action by the clear and unquestioned authority of those who felt themselves to be the rightful representatives of a whole people? The Greek pinnacle was reached by the courage and foresight of their leader Pericles, who pulled together all financial and artistic resources of the whole nation and its allies, including the military budget,

to force the erection of the Parthenon. The Romans, spreading this Mediterranean heritage over the whole of the Roman empire, set in their buildings monuments to the centralized power of their leaders. The Renaissance, after giving birth to fierce political rivalry, harnessed all secular and clerical powers, all craftsmen and artists for the glorification of the competing principalities. Wherever we look in history, we find that the rulers took no chances with the individual tastes and inclinations of the populace, but imposed strict patterns of behavior as well as hierarchy of religious, civic and economic standards which dominated architectural and artistic expression. In Japan this even covered the proportionate size of all domestic architecture, which was strictly regulated according to birth, rank and occupation of the owner.

All these systems have produced magnificent results in one period or another, but they have no roots any more in our modern world. Even if some authoritative remnants are still around in the form of large corporations and institutions, this cannot conceal the fact that the architect and artist of the 20th century has to face a completely new client and patron: the average citizen or his representative whose stature, opinion and influence is uncertain and difficult to define compared to the authoritarian lord of the past. As we have seen, this citizen, as of now, is not at all in the habit of extending his vision beyond his immediate business concerns because we have neglected to educate him for his role of cultural arbiter. He repays this neglect by running loose, only here and there restricted by social ambitions from recklessly following his commercial interests. Though he is quite aware of the restrictions the law puts on his building activities, he is almost totally unaware of his potentialities to contribute something positive, socially and culturally, to the actual development, change and improvement of his environment. So far we are only trying to prevent him by zoning laws, from committing the worst abuse, but I feel that unless we take the positive step of trying to mould him into the man of responsibility he must become, there will be little chance for the "Master-builder" ever to assume his comprehensive historic role as creator of cities again.

Our modern society is still on trial where cultural integration is concerned. This certainly cannot be accomplished by handing out authoritative beauty formulas to an uncomprehending public, untrained to see, to perceive, to discriminate. A society such as ours which has conferred equal privileges on everybody will have to acknowledge its duty to activate the general responsiveness to spiritual and aesthetic values, to intensify the development of everybody's imaginative faculties. Only this can create the basis from which eventually the creative act of the artist can rise, not as an isolated phenomenon, ignored and rejected by the crowd, but firmly embedded in a network of public response and understanding. The only active influence which our society can take towards such a goal would be to see to it that our educational system for the next generation will develop in each child, from the beginning, a perceptive awareness which intensifies his sense of form. Seeing more, he will comprehend more of what he sees and will learn to understand the positive and negative factors which influence the environment he finds himself in. Our present methods of education which put a premium on accumulation of knowledge, have rarely reached out to include a training in creative habits of observing, seeing and shaping our surroundings. The apathy we meet in the adult citizen, who entertains only vague notions of wishing to get away from it all, can certainly be traced to this early failure of arousing his active interest in the improvement of his living area. Children should be introduced right from the start to the potentialities of their environment, to the physical and psychological laws that govern the visual world and to the supreme enjoyment that comes from participating in the creative process of giving form to one's living space. Such experience, if continued in depth throughout the whole of the educational cycle, will never be forgotten and will prepare the adult to continue taking an informed interest in what happens around him. Recent research at the University of Chicago has shown that "the high I. Q. children seek out the safety and security of the 'known,' while the high creative children seem to enjoy the risk and uncertainty of the 'unknown.'" We should strengthen this creative spirit, which is essentially one of non-conformist independent search. We must instill respect for it and create response to it on he broadest level, otherwise the common man stays below his potential and the uncommon man burns up his fireworks in solation.

My concern with the problem of drawing out the potential artist and of providing him with a stimulating educational climate and a chance to acquire a perfect technique prompted me over 40 years ago to create the Bauhaus School of Design. In opposition to the then prevailing trend of bringing up a student of design on the subjective recipes of his master, we tried to put him on a solid foundation by giving him objective principles of universal validity, derived from the laws of nature and the psychology of man. From this basis he was expected to develop his own individual design approach, independent of the personal one of his teacher. This novel method of education in design has been widely misunderstood and misinterpreted. The present generation is inclined to think of it as a rigid stylistic dogma of yesterday whose usefulness has come to an end because its ideological and technical premises are now outdated. This view confuses a method of approach with the practical results obtained by it at a particular period of its application. The Bauhaus was not concerned with the formulation of time-bound, stylistic concepts, and its technical methods were not ends in themselves. It wanted to show how a multitude of individuals, willing to work concertedly but without losing their identity, could evolve a kinship of expression in their response to the challenges of the day. It wanted to give a basic demonstration on how to maintain unity in diversity, and it did this with the materials, techniques and form concepts germane to its time. It is its method of approach that was revolutionary, and I have not found yet any new system of education for design which puts the Bauhaus idea out of course. In fact, the present disenchantment with the doubtful results obtained from simply imitating highly personal design methods of this or that master without adding to their substance should give renewed emphasis to its principles.

It would be most desirable if the initial work done by the Bauhaus were continued and expanded so that we would be able to draw on an ever-increasing common fund of objective knowledge, teachable to all age groups and furnishing the much needed vocabulary with which individuals are free to compose their personal design poetry. If the capacity to focus and crystallize the tendencies of a period becomes dim, as it has in our time, the necessity of intensifying our efforts at coherence becomes ever more important. There are some vital centers in this country where such work is pursued with dedication, but their influence is still limited, and it is hard to find creative architects and artists who want to take on teaching positions besides their other work because public opinion regards teaching as a mere backwater compared to the excitement and rewards of practical work. That the two must be combined if a healthy climate for the growing generation is to evolve remains an applauded theory rather than an actual accomplishment.

I remember an experience I had myself years ago when, on the occasion of my 70th birthday, "Time" magazine commented on my career. After coming to this country, they said, I had been "content to teach only," as if this were, in itself, a minor occupation as compared to that of a practicing architect. Apart from the fact that the paper was misinformed—I had never given up my practice—it brought home to me again the realization that the profession of the teacher is looked upon in this country as a kind of refuge for those visionaries who cannot hold their own in the world of action and reality. Though admittedly there has been a shift in this view lately, it is still much too firmly established to become uprooted overnight. It remains a tremendous handicap for those who realize the importance of combining practice and teaching and want to make their contribution in both fields.

What, now, can be done by the individual practicing architect to promote a greater measure of cooperation between those groups who contribute to the development of our visible world? In spite of our partiality to "Togetherness," this fashionable trend has accomplished little in our field since it lacks a distinct purpose, a discipline, a working method of its own. All these must be found before we get more and more lost to each other.

I think we all agree that a relatedness of expression and a consolidation of trends cannot be consciously organized in a democracy, but springs from spontaneous group consciousness, from collective intuition which brings our pragmatic requests and our spiritual desires into interplay. I have tried for a long time, therefore, to give more incentive to such a state of mind by developing a spirit of voluntary teamwork among groups of architects. But my idea has become almost suspect since so many of my colleagues are still wedded to the 19th century idea that individual genius can only work in splendid isolation. Just as our profession 50 years ago closed its eyes to the fact the machine had irrefutably entered the building process, so now it is trying to cling to the conception of the architect as a self-sufficient, independent operator who, with the help of a good staff and competent engineers, can solve any problem, and keep's his artistic integrity intact. This, in my view, is an isolationist attitude which will be unable to stem the tide of uncontrolled disorder engulfing our living spaces. It runs counter to the concept of Total Architecture, which is concerned with the whole of our environmental development and demands collaboration on the broadest basis. Our present casual way of solving problems of collaboration on large projects is simply to throw a few prominent architects together in the hope that five people will automatically produce more beauty than one. The result, as often as not, becomes an unrelated assemblage of individual architectural ideas, not an integrated whole of new and enriched value. It is obvious that we have to learn new and better ways of collaboration.

In my experience these call first of all for an unprejudiced state of mind and for the firm belief that common thought and action is a precondition for cultural growth. Starting on this basis, we must strive to acquire the methods, the vocabulary, the habits of collaboration with which most architects are unfamiliar. This is not easy to accomplish. It is one thing to condition an individual for cooperation by making him conform; it is another, altogether, to make him keep his identity within a group of equals while he is trying to find common ground with them. It is imperative, though, that we develop such a technique of collaboration to a high degree of refinement since it is our guaranty for the protection of the individual against becoming a mere number and, at the same time, for the development of related expression rather than of pretentious individualism.

There can be no doubt, of course, that the creative spark originates always with the individual, but while he works in close cooperation with others and is exposed to their stimulating and challenging critique, his own work matures more rapidly and never loses touch with the broader aspects which unite a team in a common effort.

Communication from person to person is at an all time low today in spite of, or because of, our tremendous technical means of communication and most individuals are driven into shallow superficiality in all their relations with our people, including their own friends. But just as the airplane is no substitute for our legs, so personal contact between people of like interests cannot be replaced by the vast output of professional literature and information service because individual interpretation and exchange is still essential for our functioning as human beings. Our over-extended receptive faculties need a respite so that greater concentration and intensification can take place, and I feel that a well-balanced team can help achieve just that. As we cannot inform ourselves simultaneously in all directions, a member of a team benefits from the different interests and attitudes of the other members during their collaborative meetings. The technical, social and economic data, gathered individually and then presented to the others, reaches them already humanized by personal interpretation and, since all members of a team are apt to add their own different reactions, the new information is more easily seen in its proper perspective and its potential value.

For the effectiveness of this kind of intimate teamwork, two preconditions are paramount: Voluntariness, based on mutual respect and liking and exercise of individual leadership and responsibility within the group. Without the first, collaboration is mere expediency, without the last, it loses artistic integrity. To safeguard design-coherence and impact, the right of making final decisions must therefore be left to the one member who happens to be in charge of a specific job, even though he has previously received support and criticism from other members. Such principles of teamwork are easier explained than carried into practice because we all still arrive on the scene with our old habits of trying to beat the other fellow to it. But I believe that a group of architects willing to give collaboration a chance, will be rewarded by seeing their effectiveness strengthened and their influence on public opinion broadened. All teams so organized, I trust, will eventually act as ferments in our drive for cultural integration.

Considering the reservoir of rich talent and the wealth of technical and financial resources available today, it would seem that this generation holds all the aces in the age-old game of creating architectural form symbols for the ideas by which a society lives. Only a magic catalyst seems to be needed to combine these forces and free them from isolation. I personally see this catalyst in the power of education; education to raise the expectations and demands a people make on their own form of living, education to waken and sharpen their latent capacities for creation and for cooperation. Creativity of the makers needs the response of all the users. I am convinced that a surprising amount of individual whimsy, yes, even aberration and downright ugliness, could be tolerated without causing serious harm if only the grand total design, the image a society should have of itself, would emerge clearly and unequivocally. What we admire in the achievements of city builders of the past is the fact that their work reveals so clearly the ultimate destination to which each individual feature was put as an organic part of the whole area. This was what made the city perform its functions well and gave the people a stimulating background for all their activities. How else can the marvel of the Piazza San Marco, this arch example of perfection be explained? Not the work of a single master like Piazza Saint Peter, we find instead that over a long period of growth a perfect balance was developed between the contributions of a number of architects, using many different materials and methods. They achieved this miracle because they never violated the main purpose of the general plan yet never forced uniformity of design. San Marco is an ideal illustration to my credo, "unity in diversity," to the development of which, in our time, I can only hope to have made my personal contribution during a long life of search and discovery.

Gollins, Melvin and Ward

Library of the University of Sheffield
(pages 322—327)

The Library of the University of Sheffield, containing around 1,000,000 books, is the largest library in Great Britain after those of Oxford and Cambridge. It is essentially composed of small libraries of local nstitutions which were assembled together about 50 years ago. At that time it was thought that the building would be sufficient for a long time to come, since the University then had but 200 students and 22,000 books. 40 years later the same university already had 2,000 students and 200,000 books! The competition organized in 1953 used these 200,000 books as a point of departure, plus an increase of 8,000 books per year over a period of 100 years, which yields the figures of 1,000,000 books and a seating capacity of 700 for around 3500 students. In reality, the annual increase of books is 10,000 or even 15,000 instead of the 8,000 envisaged in the competition. The prize-winning building has a square plan and without annexes was already too small the day it opened! When the microfilm has definitively made itself at home in our libraries, will the building be too big or just big enough?

The periodical room contains 2,000 different periodicals. The basement floors, representing 4 times 1500 sq. meters of utility surface, each floor having a height of 2.20 meters, contain 217,000 books each. The shelves occupying 80% of the room are separated from one another by a distance of 1.20 meters; 20% are placed at a distance of 1.35 meters for the very large books.

The large reading room taking up two floors in height contains alone 15% of all the books, that is, around 130,000 books

Attention is drawn, among other things, to a very daring principle involved in the construction of this library: the library has no system of control, it being thought that on principle the reader is more important than the books. It is therefore more important for the students to be able to choose books freely than for the administration to economize on the books, for obviously the application of this principle means that many books are lost or stolen.

Although the library of the University of Sheffield has only been in existence for 2 years, it has been the target of a great deal of criticism: lack of flexibility, etc. Critics do admit, however, that the library has become a real cultural centre.

Philip Powell and Hidalgo Moya

Children's Library in Pimlico, London (pages 328—329)

The library in question is one of the community services comprised in the Churchill Gardens settlement. It is housed on the ground floor of a 7-storey building originally intended to accommodate shops. The library is designed to serve juvenile readers, maximum age 15. Older children are entitled to use the adult library, located beside it. The disposition of the different sections, the corresponding appointments and the general organization of the library are very satisfactory. The furniture is extremely simple from the constructive point of view (cf. Design Sheet).

Arieh El Hanani

Library of the Scientific Institute at Rehovot (pages 330—332)

The building in question is located on the grounds of the Weizmann Scientific Research Institute and serves 9 different departments. The library contains 80,000 books and seating capacity for 100 readers, with uncontrolled entrance. Attention is drawn to the interesting standard unit of 135 cm. as well as the very original type of reinforced concrete construction.

Carl Olschner

Public Library at Pascagoula (pages 333—334)

In contrast to European libraries, libraries in the U.S.A. are truly "open" institutions in every sense of the word. A ground floor plan of this kind of building, in a small town in Mississippi, makes this fact quite obvious. All the books are accessible to the public and the prevailing principle is self-service, this tending to stimulate reader interest.

Skidmore, Owings and Merrill

Library for Rare Books of Yale University (pages 335—338)

The core of the complex is constituted by a main 6-storey building accommodating around 180,000 rare books and documents. The basement levels comprise different sections and 640,000 additional books.

The construction elements of the building in question are pre-fabricated. It has a steel skeleton and is faced with standard elements. The adaptation of the building to its surroundings, its design as well as its proportions are satisfactory, but the question could be raised as to whether the character of the building really corresponds to the needs it fulfils.

Kurt Thut and Andreas Christen

Machine-made Furniture (pages 339—343)

When we see metal furniture we generally have the impression that it is factory-produced. In actual fact nothing calls for as much manual skill as the welding and assembling of metal furniture, and nothing is more complicated and more costly than this type of construction, since it cannot be carried out by machinery. In contrast to this kind of furniture, the items dealt with in this issue are entirely amenable to machine production, fitting, assembly and cleaning being possible entirely by machine.

Tapio Wirkkala

Electric Light Bulbs as Illumination (page 344)

Ever since Edison, who invented the electric bulb, these bulbs have retained their pear shape. Tapio Wirkkala has taken the bold step of changing this traditional shape. Wirkkala's bulbs serve as lamps and at the same time are treated as individual units. Filled with a special gas they have a life of 1500 hours. When the inside surface of the bulb is coated with a white powder the bulb has a much higher luminosity than ordinary ones.

Arne Jacobsen

St. Catherine's College in Oxford (pages 345—346)

This school serves 200 boys and is divided into a science and a classical section. The grounds have an area of 315 acres. The building will cost around 1,000,000 Pounds. It will contain 292 rooms, 46 apartments and other rooms for both students and masters. The building has a very clearly conceived disposition and construction. Construction was inaugurated by the Queen herself.

Léonie and Charles-Edouard Geisendorf

Women's Professional Training College (347—353)

The important reforms that have taken place in Swedish schooling have obliged the City of Stockholm to plan two large professional training centres devoted to domestic science, both for girls and for young men. The two centres in question provide instruction as well in textile arts and techniques, restaurant management, tourist services, transport, etc. Since instruction of this kind is devoid of meaning unless it can adapt continually to the demands of the economy, the study and demonstration rooms have necessarily to be designed for a great variety of different possible uses. The program of the centre in question is an extremely varied one and comprises the following:

1. The central domestic science school.
2. The central school of textile arts.
3. Auditorium with stage for 350 persons.
4. Gymnasium.
5. Kindergarten for 60 children.
6. Demonstration centre for adults.
7. Display rooms.
8. Municipal professional guidance centre.
9. Dining-rooms with kitchen (Capacity: 2,000 meals daily)
10. Dormitory facilities for 50 girls, different quarters for staff.
11. Other facilities (heating plant, parking, etc.)

The necessary utility surfaces were planned in a high-rise building for reasons of space. As none of the students are less than 14 years of age, the question of lifts posed no particular difficulties and, besides, the "high-rise" solution was the only possible one.
Since the plan adopted is extremely concentrated, the site is just sufficient to accommodate playgrounds, recess yards, etc. In spite of a rather inflexible organization, the disposition of the different departments and common rooms is excellent.

Friedrich Wilhelm Kraemer

Complementary Gymnasium — Evening School in Dortmund (pages 354—358)

The ever increasing perfection of modern educational methods does not contribute to a diminution of the cost of our schools. Instruction in small groups, on the one hand, the expansion of the scientific curriculum, on the other, and technological progress, finally, all combine to raise our qualitative and quantitative standards. The problem that we take up in this issue represents, in our opinion, an exception. In fact, the school in question is used twice a day, which can obviously be regarded as very economic. In the afternoon the school is used as a complementary gymnasium, in the evening as an evening school. The building, made up of different sections of reinforced concrete and surrounded by a green zone, has a volume totalling 38,000 cubic meters at 75 DM per cubic meter. The high-rise apartment house intended to house 85 students approximately has not yet been built.