

OFFICE COPY

X 278

INTEGRATED BUILDING

PLANNING KITCHEN, BATHROOM AND STORAGE SPACE

15 Panels

Exhibition prepared for the Department
of Circulating Exhibitions by
Mrs. S. Wasson-Tucker, Dept. of Industrial Design, November 1945

Panel 1

GENERAL INTRODUCTION

The house should be considered as a complete living unit rather than as shelter for a confusion of separate and unrelated items of equipment. The individual stove, bathtub and cupboard must take its subordinate place in a smoothly functioning whole, pre-planned to care for all the inter-related activities of domestic life.

Economical solutions can be offered by mass production, but only through the cooperation of manufacturer and architect or designer in response to the demands of an alert, informed public.

PANELS 2,3,

color: yellow
size: 2'-6" x
3'-4"

BATHROOM

Confusion: Here are two types of disorder. First there is confusion on the part of the designer as to the real purpose of the object (1,2,4). Is a bathtub to be simply a bathtub or is it primarily a vehicle for ostentatious decoration? The 1893 tub seems absurd now, but isn't a similar attitude evident in the arbitrary forms and meaningless ornament of the contemporary pieces(4)?

And second, there is the latent confusion of separately designed, unrelated pieces of equipment. This is as true of the slick fixtures of #4 as it is of the delightfully contorted plumbing of #3.

VISUAL
MATERIAL

- 1) BATH TUB, drawing
from "Scientific American", Jan.-June 1893, p.60
"The Bischoff Sheet Steel Bath Tub"
Ct.: Avery Library, Columbia University
cop.neg. MMA #888
- 2) SANITARY CLOSET, DRAWING
FROM: "Scientific American", March 1896, p.VI
"The Triton No.2"
Ct.: Avery Library, Columbia University
cop.neg. MMA #889

- 3) "PLUMBING", photo
Ct.: Serge Chermayeff

Chermayeff neg.#259

- 4) SINGLE PIECES BATHROOM, photo
Des.: Henry Dreyfuss
Mfr.: Crane Co., New York

MMA cop.neg.#771

ORDER: It has been possible in the past for architects to incorporate carefully chosen standard fixtures into a well-planned whole (5,6), but the average home-builder cannot afford individual treatment and special installations of this kind.

Good bathrooms will be generally available only when manufacturers and designers treat the problem as a whole. Standardization from this approach will result in more economical as well as more convenient solutions. Mass-production will probably come in the form of completely prefabricated units comprising walls and plumbing as well as built-in fixtures (7).

VISUAL
MATERIAL

- 5) BATHROOM, photo
Edward Kaufman H-ouse, University Village,
Westwood, Calif.
Architect: Richard J. Neutra
Ph.: Luckhaus

Neutra neg. #KA-I-7

- 6) DOUBLE LAVATORY, photo
Architect: Edward D. Stone
Ph.: Ezra Stoller

Stoller neg.

- 7) PREFABRICATED BATHROOM UNIT, detail photo
built experimentally in 1937 for the Phelps
Dodge Research Laboratories.
Des.: Richard Buckminster Fuller
Ct.: The Architectural Forum

cop.neg. MMA #761

PANELS 4,5,6

KITCHEN

color: red
size : 2'-6" x 3'-4"

CONFUSION: For a long time we've taken special pride in our kitchens, and with some justification as regards the technical development of the separate items of equipment.

But the various pieces are unrelated to each other and difficult to assemble in convenient, compact order (3). They also have many inherent failings. What about our too-deep refrigerators, our too-low sinks and our too-low ovens?

VISUAL
MATERIAL

- 1) ORIGINAL HUGHES RANGE, photo
Des.: G.A. Hughes, 1910
Mfr.: Hughes Electric Heating Co.
Ct.: Edison General El. Appliances Co.
original photo used
- 2) ICEBOX White Mountain Grand, 1898, drawing, photo
from: 1898 catalog Maine Mfg. Co., Nashua, N.H.
Ct.: Maine Mfg. Co.
cop. neg. MMA #729
- 3) DEMONSTRATION KITCHEN of Brooklyn Gas Co., photo
based on motion study
from: Architectural Record, March 1930
Ph.: Lazarnick
Ct.: N.Y. Public Library, Picture Collection
cop. neg. MMA #893

INTERPRETATION

ORDER: Each item of equipment needs restudy in terms of actual use and for ease of manufacture, assembly and maintenance.

As in the case of the bathroom, the best pre-war kitchens (4-6) have been a thoughtful combination of the best available standard equipment with specially designed elements.

This careful planning is developed further in post-war projects (8-10). Designers are thinking of the future in terms of prefabricated, interchangeable units for stoves and refrigerators as well as for storage. The danger of over-specialization in such design is evident in the Libbey-Owens-Ford kitchen, where excessive gadgetry indicated a relapse into confusion rather than a contribution to better and simpler living.

VISUAL
MATERIAL

- 4) KITCHEN, Cushman House, Snake Hill, Belmont,
Arch.: Carl Koch, 1940 /Mass., photo
published PENCIL POINTS, Jan. '44, p.67
Ph.: Ezra Stoller
Stoller neg. #72 C-8
- 5) KITCHEN, Country House, Perryville, R.I., photo
Arch.: Rockwell K. DuMoulin
published PENCIL POINTS, Oct. '44, p.93
Ph.: P.A. Dearborn
Dearborn neg. #13
- 6) KITCHEN, Puliam House, Lake Forest, Ill. photo
Arch.: George Fred Keck
published PENCIL POINTS, May '43, p.49
Ph.: Hedrich-Blessing Studio
photo received from H. #B1

- 7) One-piece manufactured kitchen-unit. photo
Des.: Guyon C. Earle
published TOMORROW'S HOUSE by G.Nelson & H.Wright
Ph.: F.S.Lincoln
photo supplied by Lincoln
- 8) KITCHEN OF TOMORROW, General View, photo
Designed by H.S.Dohner for Libbey-Owens-Ford
Glass Co., Toledo, Ohio
Ct.: Libbey-Owens-Ford
Cop.neg.MMA #868
- 9) SAME, oven section with electric griddle
cop.neg. MMA #777
- 10) SAME, electric mixer
cop,neg. MMA #865
- 11) KITCHEN CHART "The Kitchen of XXXX", photostat
Illustration of the "no bending" idea
Arch.: Victor Civkin
published THE ARCHITECTURAL FORUM, Sept.42,p.123
photostat

PANELS 7,8,9

color: dark grey
size: 2'-6" x 3'-4"

MECHANICAL CORE

Since mechanical equipment represents about a quarter of the cost of the house, every effort should be made to lower the cost through simplification, standardization and integration with the house shell.

Shown here are variations on the principle of the "mechanical core" (incorporation of all utilities in as single factory-made unit). The need has long been recognized, but never met by manufacturers. The closest approximation now on the market is the prefabricated utility wall (7) used in some war housing.

More elaborate developments of this idea are the utility wall-plus-fixture combinations shown in 6,8,9.

Other architects see the answer in terms of larger utility rooms (1-3) which would be brought from factory to building site on trailers. Around these standard units living space could be freely arranged.

VISUAL MATERIAL

- 1) PREFABRICATED UNIT (kitchen, 2 bath rooms,
2) heater and incinerator). Plan containing
prefabricated unit. Designed by architects
I.M.Pei and E.H.Duhart. Competition entry
California Arts and Architecture competition
DESIGNS FOR POST-WAR LIVING, 1943. Published
in Arts and Architecture, Jan.1944.
photostats

- 3) PAC design, photostat (PAC - Pre Assembled Component)
 PAC 'A' - single bedroom, bath, kitchen, laundry;
 PAC 'B' - single bedroom, bath, double bedroom.
 Architects: Eero Saarinen and Oliver Lundquist.
 Winning Design, Californiat Arts and Architecture
 competition DESIGNS FOR POST-WAR LIVING, 1943.
 Published in Arts and Architecture, Aug. 1943.
- 4) UTILITY TRAILER, including kitchen, bath and
 light-heat-power unit.
 Designer: Richard Buckminster Fuller, 1940
 photostat
- 5) PREFABRICATED BATHROOM UNIT, drawing
 Architect: Maynard Lyndon, 1942.
 photostat
- 6) PREFABRICATED KITCHEN, BATH AND HEATING UNIT
 called UNITILITY. photo of model
 Architect: W. Brooks Cavin, Jr., 1942
 Ct.: same
 cop.neg. MMA #797
- 7) PREFABRICATED UTILITY UNIT, photo
 Wall piped and wired to receive bathroom fixtures
 on one side, kitchen equipment on the other.
 From: OWI London Housing Sequence.
 OWI neg. FPHA F 1359
- 8) KITCHEN-BATHROOM prefabricated unit, Kitchen view
 Architects: Holden, McLaughling & Ass.
 published TOMORROW'S HOUSE by Nelson & Wright
 #96
 Ph.: Gottscho-Schleisner
 Gottscho-Schl. neg.
- 9) Same, Bath-room view
 " " "

PANELS 10, 11, 12

color: blue
 size: 2'-6"x3'-4"

BUILT-IN STORAGE

CONFUSION Is the 1940 neo-Baroque model bedroom really so different
 from the Victorian boudoir of 1879?

In each there is an insistence on the purposeless elaboration of the individual piece of furniture and a marvelous disregard for the harmonious workings of the whole.

VISUAL MATERIAL

- 1) VICTORIAN BOUDOIR, drawing, photostat
 Residence of James P. Kernochan, Esq. NEW York
 Ct. N.Y. Public Library, Picture Coll. /1879
 MMA neg.

- 2) BLUE HEAVEN, bedroom, photo
Des.: Joseph B. Platt, 1939
From: "America at Home" exhibit, N.Y. World's Fair.
Ph.: Richard Averill Smith
Ct.: same
Smith neg. #55 P 7
- 3) VICTORIAN CABINET, woodcut; photo
cabinet designed by Messrs. Cooper and Holt,
London, 1876.
Ct.: New York Public Library, Picture Coll.
cop. neg. MMA #887

ORDER The usual separate pieces of storage furniture - chests of drawers, buffets, desks - tend to clutter up rooms unnecessarily.

The tendency, therefore, has been toward built-in cupboards and shelves, hand-tailored by architect and carpenter to the special requirements of the owner. These have the advantages of custom design, economy of space and easy accessibility, but also the disadvantages of costliness and a lack of adaptability to changing needs.

There is also the recurring danger of over-specialized design. In a well-planned closet (7) everything is visible and one need not hunt frantically for a particular drawer.

Visual
Material

- 4) ~~XXXXXXXXXXXXXXX~~
DINING ROOM, Carl Koch House, Cambridge, Mass. photo
Grand Prize, Prize Houses over \$12,000
from the second annual Pittsburgh Glass In-
stitute competition, Nov. 1938.
Architects: Edward D. Stone, Carl Koch, Jr., 1938
Ph.: Ezra Stoller - Et.: same
Published in Arch. Forum, Jan. '39, p. 42
Stoller neg.
- 5) ~~XXXXXXXXXXXXXXX~~
BUILT-IN RADIO, PHONOGRAPH AND RECORD STORAGE, PHOTO
Architect: Serge Chermayeff, 1938
Et.: same cop. neg. MMA #763
- 6) LIVINGROOM section with built-in desk, cases and
bookshelves. Eaton House, Bay Area, S. Francisco,
Calif. photo
Architect: William W. Wurster, 1943
Ph.: Roger Sturtevant
Et.: same
Published in PENCIL POINTS, Oct. '43, p. 67
Sturtevant neg.
- 7) BUILT-IN CLOSET of irregular shape, photo
Arch.: Walter Gropius, Marcel Breuer, Ass. Archi-
/tects
Ph.: Ezra Stoller
Et.: same
Published in Arch. Forum, Oct. '41, p. 301
Stoller neg.

- 8) BEDROOM, Carl Koch House, Cambridge, Mass., photo
Grand Prize, etc.... same as No.4
Stoller neg.
- 9) FARMER'S LIVING ROOM KITCHEN, photo
Architect: G.A.Berg, 1939
from: The New York World's Fair, 1939/40
Ph.:
Ct.:
- 10) HALLWAY, Hiatt House, Modesto, Calif.
Architect: Gardner Dailey, 1940
Ph.: Sturtevant
Ct.: same
neg. Sturtevant #17

PANELS 13, 14, 15

color: blue
size: 2'-6"x3'-4"

FLEXIBLE STORAGE

Unit furniture has the special advantage of flexibility. By unit furniture is meant separate, standard-dimensioned sections which can be grouped together in various ways, regrouped, added to, subtracted from.

The idea is not new. It originated here in the United States in the 'nineties with the familiar "golden oak" sectional bookcases and filing cabinets shown below.

The sectional principle was developed in office equipment and in kitchen cabinets, but only recently has it been seriously applied to domestic furnishings.

Light-weight, prefabricated, interchangeable units like those shown on these two panels can easily be arranged and rearranged for various storage needs. They are both flexible and compact. Flexibility, however, can easily be defeated by overspecialization.

Such units are designed for mass production, but they require a precision which is difficult to obtain in wood, especially for large composite pieces. Moreover, if the units are to be used with complete freedom, each must be carefully finished - back, sides and top as well as front.

VISUAL MATERIAL

- 1) UNIT BOOK CASES, photostat
From: Globe-Wernicke catalog, ca.1900
photostat
- 2) OFFICE FILING UNITS, photostat
From: Globe-Wernicke catalog of 1898
photostat
- 3) OFFICE FILING UNITS, 5 sections unassembled,
From: Globe-Wernicke catalog of 1898
photostat
taken from photos in Ind.Des.Coll.

- 4) ORGANIC DESIGN furniture; 3 bases to hold two to four units of case furniture, photo
Des.: Eero Saarinen and Charles Eames, 1941
Mfr.: Red Lion Table Co., Red Lion, Pa.
Ph. : Sunami
neg. #S-3420
- 5) ORGANIC DESIGN unit furniture, cabinets; photo
same as above
neg. #S-3590
- 6) ORGANIC DESIGN unit furniture, cabinets; photo
same as above
neg. #S-3589
- 7) ORGANIC DESIGN unit furniture, combination of cabinets, benches and chairs, photo
same as above
neg. #s-3423
- 8) STORAGE WALL, detail photo of desk, radio, cabinets and book-section.
Ph.: LIFE Ct.: same
Arch.: George Nelson, Henry Wright, 1944
LIFE neg.

For the loan of photographs, we are grateful to:

The Avery Library, Columbia University
Serge Chermayeff
Edison General Electric Appliance Co.
Ladies Home Journal
Libbey-Owens-Ford Glass Co.
LIFE Magazine
Richard Neutra
New York Public Library, Picture Collection

We also wish to thank the following photographers:

P.A. Dearborn
Gottschow-Schleisner
Hedrich-Blessing Studio
F.S. Lincoln
Richard Averill Smith
Ezra Stoller
Roger Sturtevant
Soichi Sunami