



EDUCATION
OF AN
ARCHITECT

THE IRWIN S. CHANIN SCHOOL OF ARCHITECTURE
OF
THE COOPER UNION

RIZZOLI
NEW YORK

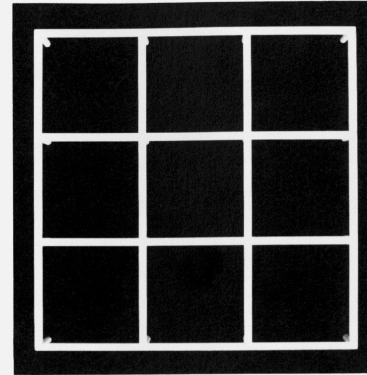
FIRST YEAR DESIGN

beam, *n.* [AS. *beam*, a tree, beam, ray of light; O.H.G. *baum*; Goth. *bagms*; Gr. *phyma*, a growth; Sans. root *bhū*, to grow.]

1. any one of the principal pieces of timber, metal, etc. in a building, that lie across the walls, and serve to support the principal rafters.
 2. any large piece of timber, long in proportion to its thickness, and finished for use.
 3. the part of a balance from the ends of which the scales are suspended; also, the balance itself.
 4. (a) any of the heavy, horizontal cross-pieces of a ship; (b) a ship's breadth at its widest; (c) the side of a ship or the direction out sidewise from a ship.
 5. in zoology, (a) the main stem bearing the antlers or branches on a stag's head; (b) a long, stiff feather in the wing of a hawk, etc.
 6. the pole of a carriage. [Obs.]
 7. a wooden cylinder forming that portion of a weaver's loom on which the warp is wound before weaving; also, the cylinder on which the cloth is wound during weaving.
 8. the straight part or shank of an anchor.
 9. any one of the main cross timbers or pieces of iron or steel which span the sides of a ship horizontally and support the decks.
 10. the main piece of a plow, to which are attached the handles and colter; a plow beam.
 11. the oscillating lever of a steam engine, reciprocating upon a center and forming the connection between the piston rod and the crankshaft: called also *working beam* or *walking beam*.
 12. a ray or aggregation of parallel rays of light; a slender shaft of light.
 13. figuratively, anything analogous to a ray of light; as, a *beam* of hope; *beams* of majesty.
 14. a radiant look, smile, etc.
 15. in radio, (a) a signal sent continuously in one direction from a landing field, harbor, etc. as a guide for incoming aircraft or ships; (b) the angle at which a microphone receives or a loud-speaker transmits most effectively; (c) the maximum effective range of a microphone or loud-speaker.
- on the beam*; (a) in a line with the beams, or at right angles with the keel of the ship; (b) accurately following a radio directional signal; hence, (c) [Slang.] on a correct or direct course; (d) [Slang.] doing well; working well; alert, keen, etc.
- on her beam-ends*; inclined so far on one side that the beams almost stand on end: said of a ship.

col/umn (-um), *n.* [ME. *colunne*, a column in a page; L. *columna*, a column, pillar.]

1. a slender upright structure, generally consisting of a cylindrical shaft, a base, and a capital; pillar: it is usually a supporting or ornamental member in a building.
2. anything resembling a column in shape or function; as, a *column* of water or mercury;



the spinal *column*.

3. in botany, the united stem and styles of plants when they form a solid central body, as in the genus *Orehis*.
 4. in military and naval usage, a formation in which the elements, as troops or ships, are placed one behind another.
 5. one of two or more vertical sections of printed matter lying side by side on a page and separated by a rule or blank space.
 6. a feature article appearing daily or at intervals in a newspaper or magazine and written by a special writer or devoted to a certain subject.
- clustered column*; a column presenting the appearance of several pillars clustered together.
- col-um'nār**, *a.* 1. like a column.
2. formed in or composed of columns.
 3. written or printed in columns.
- columnar structure*; a geological structure that has a columnar form, illustrated in rocks of basaltic character, as in the Giant's Causeway.



clustered column

fab'ri-cāte, *v.t.*; fabricated, *pl.*, *pp.*; fabricating, *ppr.* [L. *fabricatus*, pp. of *fabricari*, to construct, frame, build, from *fabrica*, any skillful production, a fabric.]

1. to frame; to build; to construct; to make; to manufacture.
2. to make or build as a whole, by connecting its parts; as, to *fabricate* engines.
3. to invent and form; to forge; to devise falsely; as, to *fabricate* a lie or story.

Our books were not *fabricated* with an accommodation to prevailing usages.

—Paley.

Syn.—frame, construct, make, manufacture, produce.

pan'el, *n.* [L. *pannus*, a piece of cloth.]

1. (a) a piece of cloth placed under a saddle; saddle lining; (b) a soft saddle.
2. a section or division of a wall, ceiling, or other surface; specifically, (a) a section of a fence or railing between two posts; (b) a flat piece of material, as wood or metal, usually rectangular, forming a part of the surface of a wall, door, cabinet, etc., and usually set off from the surrounding surface by being raised, recessed, framed, etc.; (c) a compartment or pane of a window; (d) an insulated board, or flat surface, for instruments or controls, as of an electric circuit, airplane, etc.
3. (a) a thin board used for oil painting; (b) a painting on such a board; (c) any picture

- very much longer than it is wide.
4. a list or group of persons selected for a specific purpose, as judging, discussing, etc.
 5. in aeronautics, (a) one complete section of a wing; (b) in dirigibles, the quadrilateral area bounded by two adjacent longerons and transverses.
 6. in dressmaking, a lengthwise strip, as of contrasting material, in a skirt or dress.
 7. in law, (a) originally, a piece of parchment on which were recorded the list of persons summoned for jury duty; (b) later, the list itself; (c) the jurors as a whole.
 8. in mining, a compartment of a mine.

piër, *n.* [Ofr. *perre*; ML. *pera*.]

1. a heavy structure supporting the spans of a bridge, especially, as distinguished from an abutment, one supporting the adjacent ends of two center spans of a long bridge.
2. a structure built out over the water and supported by pillars or piles; used as a landing place, pleasure pavilion, etc.
3. in architecture, (a) a heavy column, usually square, used to support weight, as at the end of an arch; (b) the part of a wall between windows or other openings; (c) a reinforcing part built out from the surface of a wall; a buttress.

wall, *n.* [ME. *wal*, *walle*; AS. *weal*, *weall*, from L. *vallum*, a rampart, from *vallus*, a stake, pale, palisade; lit., a protection.]

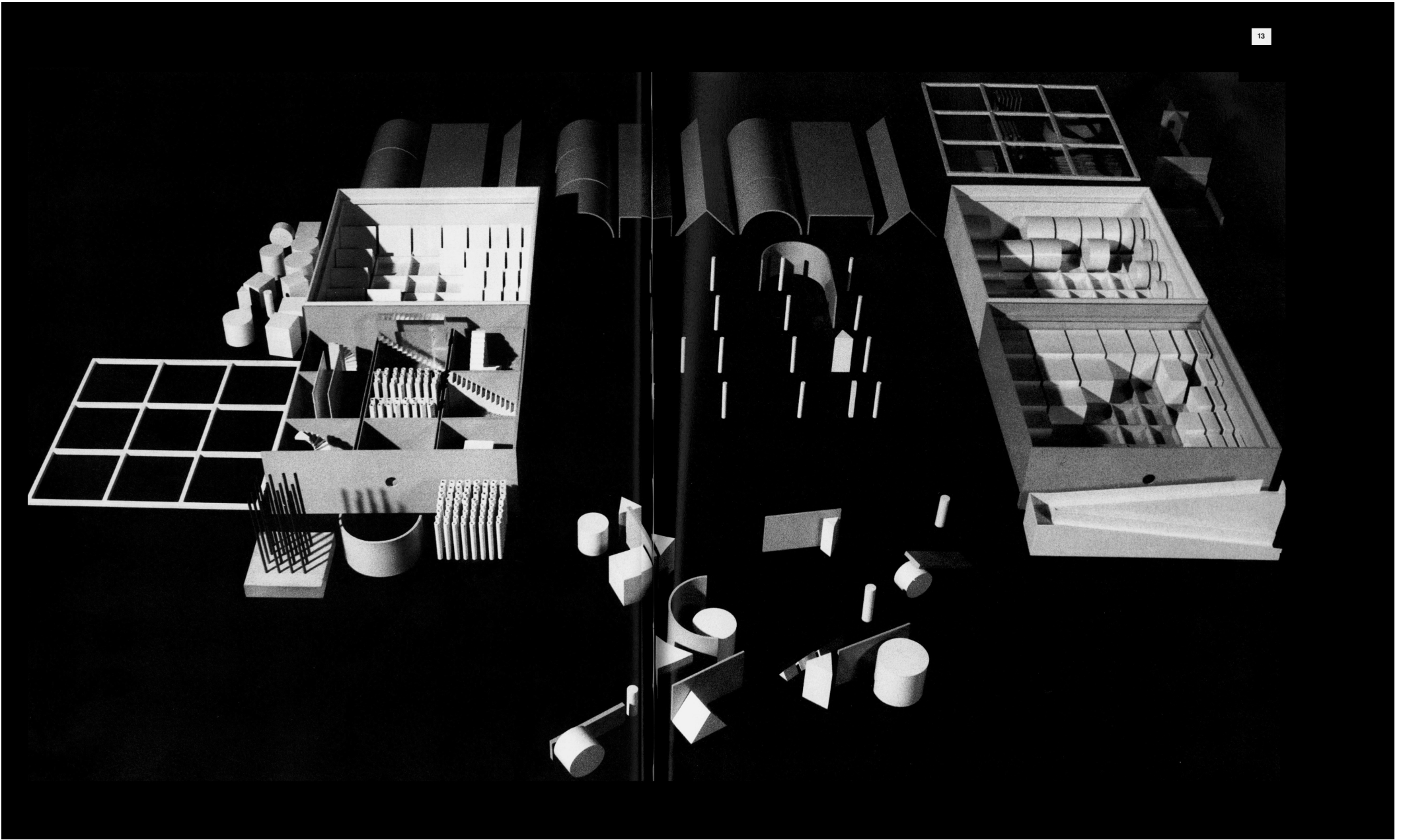
1. an upright structure of wood, stone, brick, etc. serving to enclose, divide, support, or protect; specifically, (a) such a structure forming a side or inner partition of a building; (b) such a continuous structure serving to enclose an area, separate fields, etc.; (c) [usually in pl.] such a structure used as a military defense; fortification; (d) such a structure used to hold back water; a levee; dike.
2. something resembling a wall in appearance or function, as the side or inside surface of a container, body cavity, etc.
3. something suggestive of a wall in that it holds back, divides, hides, etc.; as, a *wall* of secrecy.
4. in mining, (a) the rock enclosing a vein; where the dip is considerable, the upper boundary is called the *hanging wall*, and the lower the *footwall*; (b) the side of a drift.

off the wall; (a) unsound of mind; crazy; (b) very eccentric or unconventional. [Slang.]

the wall; in narrow streets and lanes, the privilege or courtesy of allowing one, especially a lady, to pass or walk along the wall or inner side of a sidewalk: also used in the phrase *to give or take the wall*.

to drive (or push) to the wall; to place in a desperate or extreme position.

to go to the wall; (a) to be forced to retreat or yield in a conflict; to suffer defeat; (b) to fail in business; to become bankrupt.



NINE SQUARE GRID MODEL made by Lorna McNeur