If a sculptor tried to produce the expressive modeling of “Bird in Flight” or the subtle relation of planes and surfaces in “Construction Sphérique” from a series of studies in plan and section, he would separate himself from the actual materials by at least one arbitrary process: interpreting a sculptural conception of specific materials from a flat drawing or paper. This is dangerous because it is only one step further until the conception is forgotten, and the paper design remains.

The same is true of landscape. By working in plan and section only, the landscapist cannot approach the real problem, which is to integrate materials with design in a three-dimensional relation. It is, however, seldom possible to work directly in landscape materials, because of scale and technological requirements. The scale model is the medium nearest to actuality—a diagram of forms in relation to the space which surrounds them and the people who use the space—but it can never hope to reproduce the subtleties of nature or the seasonal variations of the actual landscape.

Since we have two relatively constant effects from which all others might be considered variations, it would be reasonable to make two models of some projects to show space relations in summer and winter, but to attempt an exact reproduction of nature is the same laborious futility which possessed the early Dutch masters to paint with a single-hair brush every leaf on a tree or every hair on a Madonna’s head.

But, with the growing interest in models, we must inevitably pass through a stage of naturalism just as we did in sketching and rendering. The designer will become intrigued with presentation rather than idea and layout, and will spend many pleasurable hours in an artistic dreamland putting a rich mosaic over the absence of an idea. Even now, many schools are following the “fad of modelism” presenting the same “charming vista which simply cries out for a bird bath” in rubber sponge and cardboard instead of brown and yellow washes or Chinese ink. Here’s to keeping up with the times! After all, isn’t the model just another “attempt of the younger generation to be different”?

Actually, models have gained their present status because they are the easiest method to study or present a three-dimensional idea. A landscape in plan always becomes unduly complex. For instance, a sixty-foot elm tree, a row of twenty-foot dogwoods, an eight-foot wall, a three-foot hedge, a border of perennials, paths, and ground covers look rather complicated and busy when superposed in plan, but the effect might be extremely loose and open, even sparse, on the ground because of the perforated qualities or different heights of the material. The elevation gives another flat picture—this time of “frozen music”—emphasizing the pitfalls of façadism, and neglecting the element of space. Perspectives are undoubtedly a help in the early stages and for presentation, but they can deal only with one point of view at one time. Isometrics also have unquestioned value, but are still one step farther removed from tangible space, and are less easily adapted or changed in study than the model.

In the model, we consider all problems at once and from all points of view: ground modeling, circulation, use, the forms of materials, and immaterial space. Rather than façades, pictures, and plan areas, we deal with time and space in relation to people and material—the perspective experience of people moving in free space interrupted by landscape materials to surround the individual at all times and in all locations with a variety and balance of forms, and direct his experience and circulation.

The contemporary landscape is concerned with the specific form for the specific condition in terms of specific materials. To facilitate study, it is advisable to develop a model palette of specific natural forms; but special man-made forms must be devised for any particular problem. The materials in which these are represented depend upon the ingenuity of the designer. A few recommendations:

1. Earth forms—to show existing contours
and proposed modeling; made of plasticene, cardboard contours, plaster Paris, sculptor’s clay, and various trade plastics such as Craftstone and plastic wood.

2. Plant forms—(see April issue) the more abstract the better for study, but the subsequent use of the model will determine the material and detail of the scale symbols. In order of importance, the characteristics are: form, value, texture, color, and seasonal variations.

a. Trees: complete abstractions of form may be made from pipe cleaners, copper wire, wood, cork, paper, mesh wire, sprayed or colored cellophane. The structure of a deciduous tree can be represented adequately by picture wire with the ends splayed out to indicate branching and twigging. Texture, value, and color can be suggested for both deciduous and evergreen trees by rubber sponge.

b. Hedges and shrubs: roughly divide into four heights—over 12’, above the eye level (6'-12'), below the eye level (3'-6”), and dwarf (1'-3’). (See April issue). All kinds of sponge may be cut to proper shapes; or use yarn held together broom fashion.

c. Flowers: average one to eight feet. On small scale models, they can be indicated by a mosaic of opaque water colors, or crumbs of colored paper distributed on glued surface. The best at 1/8" scale or larger is the hooked rug method of looping colored yarn through a paper template of the flower bed. The loops of yarn are cut at the desired height, and the template is pasted in place.

d. Ground cover: this includes grass and all substitutes less than one foot high. The representation will vary tremendously with scale—everything from green velvet and blotter to painted burlap and solid-colored yarn. Contrast of textures and values are important, but should not attract attention to themselves or the material of which they are made.

e. Vines: Best left out of models less than ¼" scale, or indicated in water color on the climbing surfaces.

3. Rock and Architectural forms.

a. Walls and Paving: character indicated on cardboard, cellophane, or plastics having suitable surface qualities. Perforations by incision. Successful stone masonry made of Scotch tape torn in fragments representing stone or stuck on cardboard with pattern of joints exposed.

b. Outcrop: indicated on cardboard the same as exposed contours, or built up in plastic material and painted.

4. Water. White and colored mirrors may be used; rippled glass for wave effects and distorted reflections. With any kind of glass, cutting is difficult and all but the simplest shapes must be made by masking off the portions not within the desired shape. This does not permit glass to be flush with surrounding material.

Colored cellophane can be cut easily and cemented on top of other surfaces. Sealing wax also reflects when pumiced smooth, and can be made to fill crevices the same as water.

III

After complete research into existing conditions and limitations of the site, make an ab-
Earth modeling and outcrop forms are successfully shown with plasticine, which acquires a luminous quality when painted with tempera. As a further suggestion, note below the conventional rendering of paving, and plant materials represented by three values of sponge—to avoid confusion at small scale. The reflecting pool is not mirror but transparent celophane over blue paper stract diagram of proposed circulation, use, and orientation. Make a replica of existing ground forms and irremovable elements such as important trees, buildings, etc. Divide the space with natural and invented forms, adjusting these with the previous diagram and plastic ground forms simultaneously. Study from all points at eye level, adjusting in terms of time and space relationships. Use perspectives freely. Study changing effects of the seasons in two or more model diagrams if necessary, and decide on specific materials which assume a desirable relationship of value, texture, color, and organic form. Record all data (elevations, construction, materials) on a rough plan to scale.

It is convenient to build the final model at a standard size and as light in weight as possible so that it can be carried or shipped conveniently in a model kit. A kit 30" x 18" x 8" will carry the average model built at 1/4" to 1/32" scale and representing ground area from approximately 120' x 72' to 960' x 576'. If the engineer's scale is used, (1/5" to 1/40") the same thing can be accomplished with a kit 24" x 14" x 6".

Discrepancies in size will be avoided if the final model is built directly on a piece of plywood wall board, or insulation board of the right dimensions. The materials for all the elements can be selected from the palette outlined above, but the refinement and literalness of the finished product depend upon how far one can go without confusion, and the use to which the model is to be put. For instance, the more abstract the better for office study. A presentation model should still be diagramatic and conventionalized with more attention to detail and accompanied by perspective sketches at eye level. For traveling or museum exhibit, solidity is the most important factor: excellent landscape models for this purpose have been made entirely of tooled wood.

Photographing presents a most difficult problem. First, a three-dimensional landscape surrounds the observer, and the perception of space cannot be "picted." Second, the camera is designed to focus as the eye sees at human scale, but it cannot reinterpret the scale of the model. It is therefore possible to get an eye level view, as it would actually look, only if the camera is placed far enough from the model to eliminate distortion, and a small section of the negative is enlarged many times. Third, values are often different in two photographs of the same model because of lighting. Trial and error is the only method for one photographing landscape models.
One of the pleasantest results of the Editors' efforts to assemble model material from far and near for the present issue was making the acquaintance of the many talented men in this field. Notable among these is Alfred Weidler, Hollywood modelmaker, who has followed this interesting career for 16 years. He has made more than 300 models, large and small, and is also the author of correspondence courses in modelmaking. His skill is evident from a comparison of the study model above of the residence designed by Roland E. Coate, Los Angeles Architect, for Arthur Hornblow, Jr., and Mrs. Hornblow (Myrna Loy), with a photograph of the same façade after it had been actually built. The architect and clients met in Weidler's studio to see the model, study the effects of sunlight on the porches, and consider details of the design—which was changed in several ways as a result of this conference. The same changes would have been far more costly than the model, if they had been made after construction was started or nearly done.
Typical of the effective models made by Theodore Fletcher in the office of Victorine & Samuel Homsey, Architects, of Wilmington, Delaware, are these at \( \frac{3}{8}'' \) scale showing the Cambridge, Maryland, Yacht Club, left, and a contemporary country house built in 1937. The first was particularly useful for showing a building committee the architect's suggestions. The office uses simple block models in studying mass and color and omits details even at \( \frac{3}{8}'' \) scale. Sprayed with a 50/50 solution of alcohol and shellac, these matboard models are painted with water color paints in lieu of rendered presentation sketches and are considered the "truly architectural way" of studying and presenting their buildings.

The model below of the George Washington High School, San Francisco, California, designed by J. R. Miller and Timothy L. Pfueger, was made in the office of the latter Architect. It was fashioned of thin cardboard over a frame of wood blocks, windows being cut out and backed with ruled paper. The columns are made of wood strips. Shrubs and trees are of sponge rubber and the contours of the site were built up in development of the carefully-studied base of the model. Photo is by G. Moulin.
The distinctive residential work of Jerome Robert Cerny, Architects, of Chicago, is reflected by these models from that office. The main units of both houses were cut from balsa wood. Windows of heavy celluloid marked with white paint muntins were then inserted in recessed openings and details added, such as the iron filigree balcony of Cerny's own residence, above, indicated by white ink designs on celluloid strips. Lawns are wall board and shrubs and trees are of natural materials.
The models on this page were made by Louis Fromm, who has been engaged in modelmaking in New York since 1922. Representative of his architectural scale models are the one above, at \(\frac{1}{8}\)" scale from a country house designed by Noel & Miller, New York Architects, and the cottage at the left, at \(\frac{3}{8}\)" scale, one of a group made for the Johns-Manville displays at the New York and San Francisco Fairs. It was designed by Maxwell A. Norcross, Architect, of Cleveland. The rendered model below at \(\frac{1}{4}\)" scale represents a house designed for a site at Sun Valley, by Erard A. Matthiessen, New York Architect. The upper photo is by Louis H. Dreyer, the one at center by Charles P. Cushing, and the lower one by Robert M. Damora. Fromm stresses the value of ingenuity and craft facility in modelmaking, to meet the various needs of each specific job.