



FORUM



LOGICAL LAND USE

Housing in Vermont that preserves
the land instead of destroying it

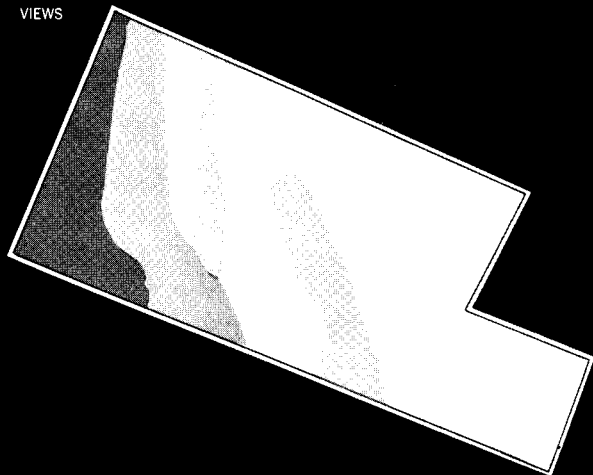
The attractiveness of the Vermont landscape is, ironically, its worst enemy, and the extraordinary influx of vacationers threatens to destroy the very qualities that make Vermont appealing. The challenge in using the land includes the challenge of saving it too, and the housing development shown here, although only four units at the start, has lessons for any area with the special dilemma of attractiveness.

Even in the first four units of Locus Bolton, the intention of

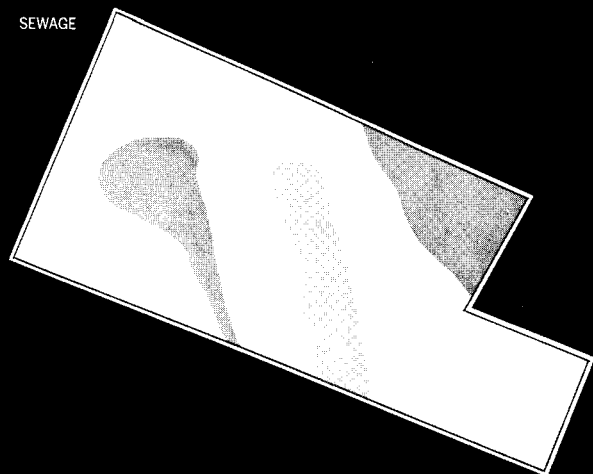
the architectural designer, Peter Gluck, is clear. By clustering the units on the most favorable part of the large site, he leaves the rest largely undisturbed, and in the process gets sizeable parcels for community facilities.

The concept is seen clearly on the schematic maps. First, the large site is evaluated in terms of several selected factors—views, sewage, roads—the lightest shade indicating the most valuable portions, and the darkest shade the least valuable. (Value refers to

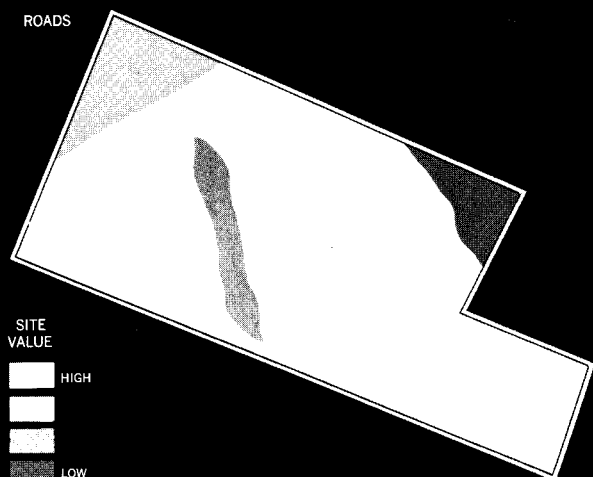
VIEWS



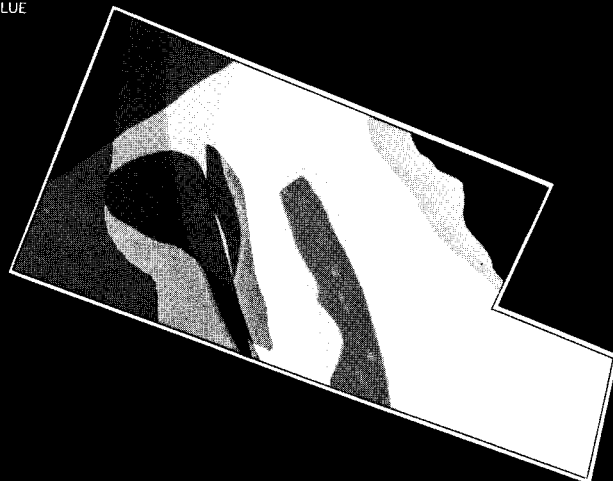
SEWAGE



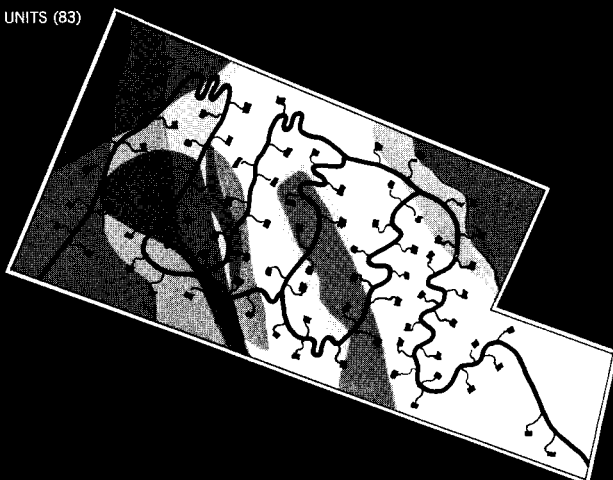
ROADS



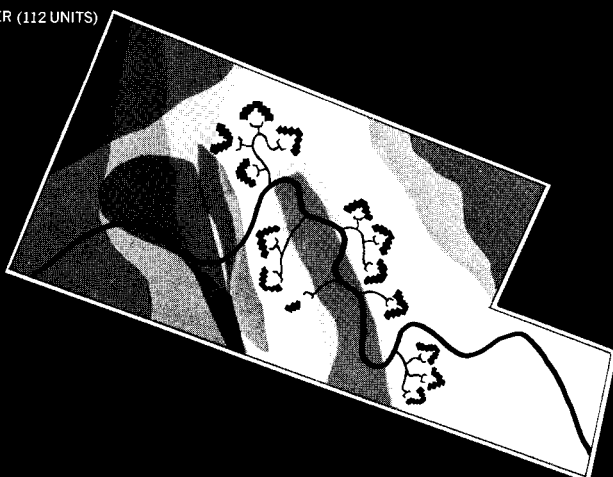
SITE VALUE



SINGLE UNITS (83)



CLUSTER (112 UNITS)



dollar value—highest where the view is best or where it is least expensive to put in roads or sewage.) Other factors could also be evaluated—water supply, soil quality, or edge conditions.

Then the three maps are superimposed, and different layouts compared. It is immediately apparent that this site could hold only 83 units of conventional housing, compared to 112 units of clustered housing. It is also immediately clear that few of the single houses would end

up on the most valuable land.

"The mind is a terrific computer," says Gluck, "and an architect does this kind of overlay in the mind all the time." But he finds these maps a good device to show a developer. For one thing, they speak the language of dollars and cents that a developer understands; there are no intuitive (and therefore arguable) opinions such as whether a house is best sited on the top of a hill or the side of a hill.

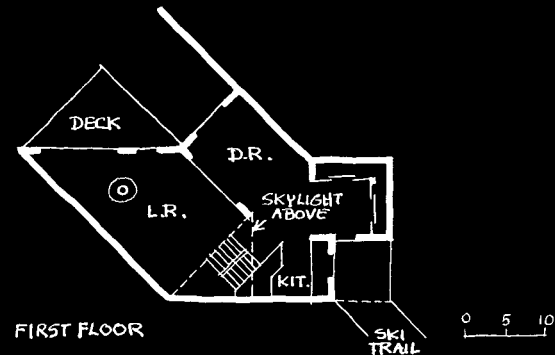
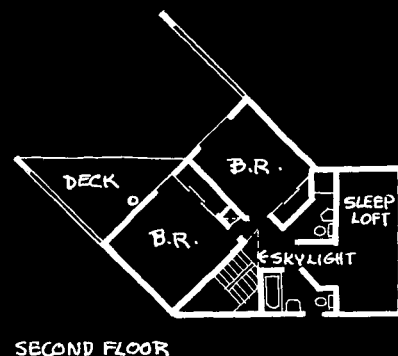
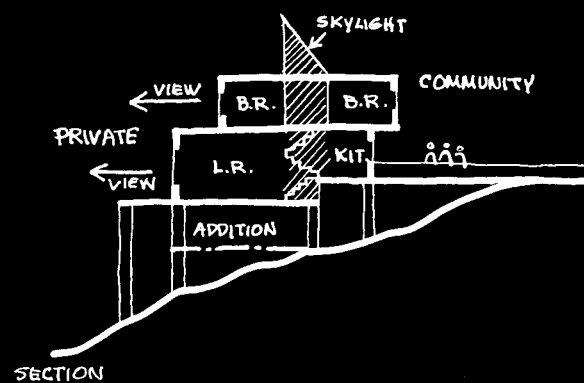
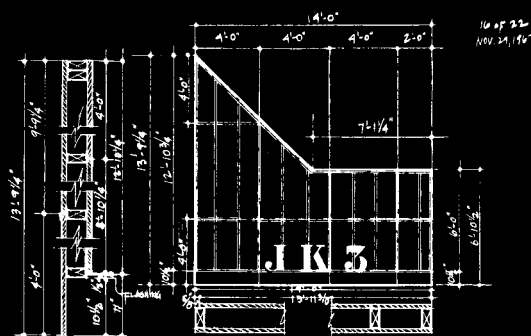
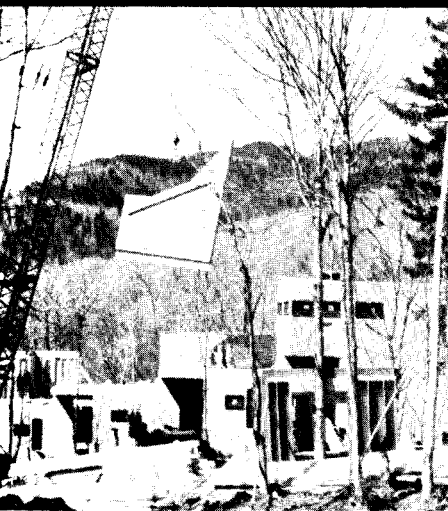
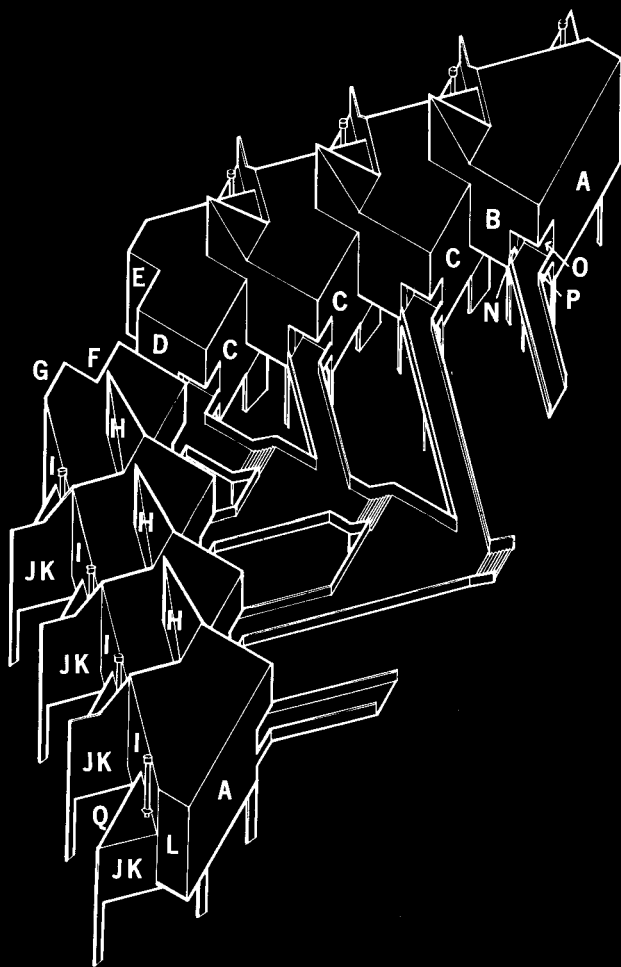
Gluck also analyzes the costs

of providing roads and utilities under both conventional and cluster development, and the argument for clustering—again on an economic basis—is persuasive. A developer's response to clustering is positive for still other economic reasons. With detached units, each owner usually wants a different design, reports Gluck, but with a cluster pattern the owner is more likely to accept standardized design. Then too, as a cluster development proceeds, getting more

community facilities, that community becomes *more* appealing to prospective buyers; while as a regular development proceeds, using more land, that community becomes *less* appealing.

The idea realized

When it comes to particular factors in the site analysis, or to the particular form of the housing cluster, Gluck says about Locus Bolton, "This is a way; anything specific is less important than the idea itself."



Locus Bolton, the first realization of the idea, is in the Bolton Valley ski area, some 18 miles east of Burlington. The four initial units are only half of a typical cluster; joined by a mirror four, they will demarcate a large deck on the entry side, making for a communal back yard that offers something more than the usual parking lot. Each house is reached by a private entrance bridge, and has private decks opening to the view. The broad-V staggered plan gives

complete privacy to these decks; the V-plan also gives each unit exposure on three sides (a skylight lights the fourth).

In a total of 1,200 sq. ft., each house has living room, deck, dining room and kitchen on the lower level, and four bedrooms, another deck, and two baths on the upper level. If more space is desired, an additional story can be hung below the lower level. Since this optional floor does not rest on grade, the house as a whole is independent of

fluctuations in grade; any differences in grade can easily be taken up by the entry ramps.

The structure prefabricated

Masonry walls divide the units, but otherwise the construction is conventional wood frame. The construction process, however, is anything but conventional.

The complicated outer form of the building was broken down into its component wall panels (see isometric perspective) and a shop drawing made of each of

the panels (see typical drawing). The drawings were turned over to a local carpentry shop, where craftsmen unaccustomed to building anything very sophisticated found it relatively easy to turn out these panels. The shop's employees—four to six men during this job—concentrated on making one panel at a time, making all they needed, then moving on to the next. (Floors, roofs and interior partitions were built on the site.)

This prefabrication system is



only two-dimensional—not a three-dimensional box system complete with electrical and plumbing work. Gluck believes that a panel system is not good enough, although it gives more design freedom than a box system. And the finished panels can simply be stacked against a wall in the shop until ready to go to the site. Boxes would present a serious storage problem, especially for the small shop that could otherwise easily manage this kind of job.

The real value of prefabrication in this case, says Gluck, lies in "getting the product fast, and getting it when you want it, and maintaining quality control." Also, he points out, it is a way of getting a rather complex building built at all, in areas of the country where builders will either refuse to bid such a job or will automatically figure it at a premium because of its unfamiliarity. The advantages of this prefabrication over conventional construction do not show up

markedly in the cost—these first four units of Locus Bolton went up at \$15.75 per sq. ft.—but a developer will see savings in the short construction period.

Gluck, in fact, finds that in analyzing the site and designing for prefabrication, he establishes, beyond doubt, the economic value of having an architect. He proves his worth by saving money for the developer and land for the residents. This worth is verified by the fact that Locus Bolton is expected to

move ahead this next year, along with similar Gluck-designed projects in the Virgin Islands and on Martha's Vineyard.

—ELLEN PERRY BERKELEY

FACTS AND FIGURES

Locus Bolton, Bolton Valley Ski Area Bolton, Vt. Developer: Architectural Research and Development Corp. Designer: Peter L. Gluck. Building area: 1,200 sq. ft. in each of four condominium houses. Construction cost: \$18,900 per unit (excluding site, water, sewage, road, fees).

PHOTOGRAPHS: Norman McGrath, courtesy of House Beautiful.