



The Ark, above, designed by the New Alchemy Institute, is on the southeast coast of Prince Edward Island. A large greenhouse, right, is part of a basic family dwelling now operated by the province's Institute of Man and Resources. The heat is circulated through ordinary forced-air ducts. To cool it in the summer, the residents simply open the windows and doors. The greenhouse produces tomatoes in December, broccoli in January. The fish tanks are to the left.



There are many solar projects besides the Ark. Its architectural design for passive solar heat has been used in two low-cost houses in Charlottetown. One was sold (at the same price as other houses in the development); the other is being rented by the institute, which is measuring its effectiveness. Two farms on the island are building greenhouses patterned after the Ark.

In 1976 and 1977 the National Research Council used fourteen solar space-heating systems installed in single-family, detached houses, spread across Canada from Halifax to Vancouver, to test a variety of systems. Last spring it tested systems in multi-unit dwellings, low-rise apartment buildings and row houses. It is now letting contracts for similar projects in non-residential buildings, such as hospitals, that use large amounts of warm water. Etco Photo Limited of Ville LaSalle, a

The passive design aspects of solar heating are at least as important as the active elements. Saskatchewan's Conservation House in Regina, left, is designed with conspicuous overhangs to exclude summer sun and admit winter sun. On the lower level are shutters that come down at night. New Brunswick Power's district office in Shediac, right, combines offices and a warehouse. The solar-heated office is on the south; the electrically-heated warehouse, on the north. Banks of earth on the side add insulation.

