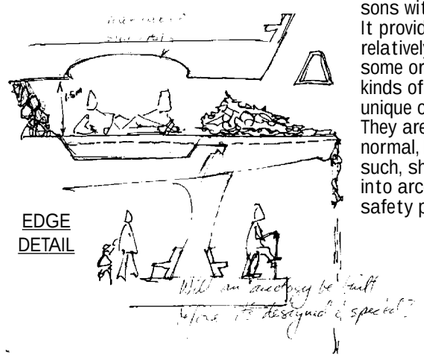
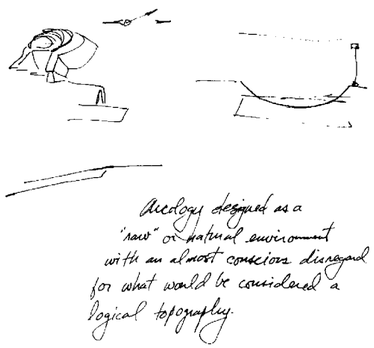


The natural world is oblivious to the special needs of persons with physical handicap. It provides places which are relatively inaccessible to some or many. Often, these kinds of spaces provide an unique or special experience. They are valuable parts of normal, healthy life and, as such, should be incorporated into arcology -- relative safety provided.

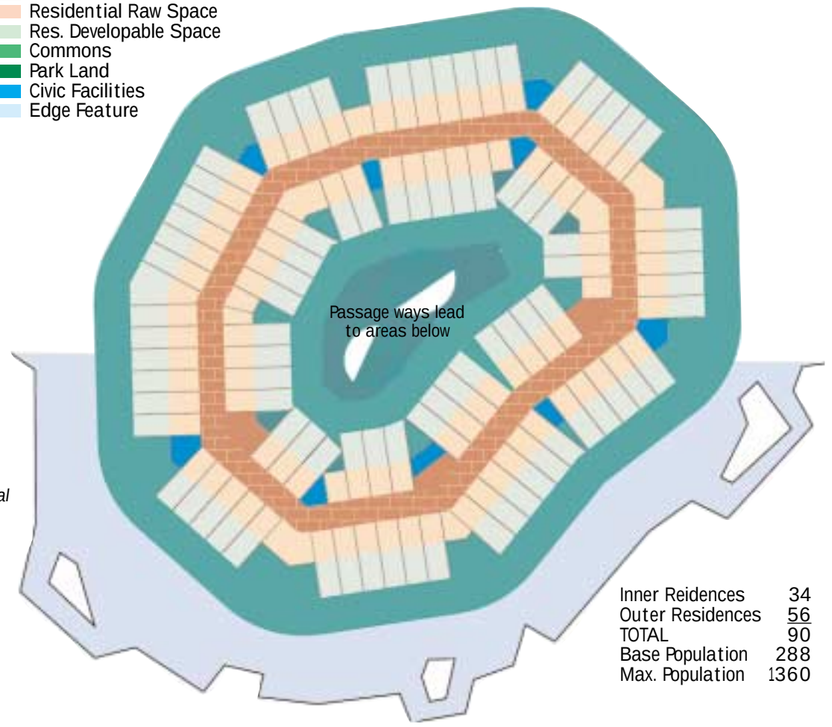


CONCEPT PLAN FOR A LARGE NEIGHBORHOOD

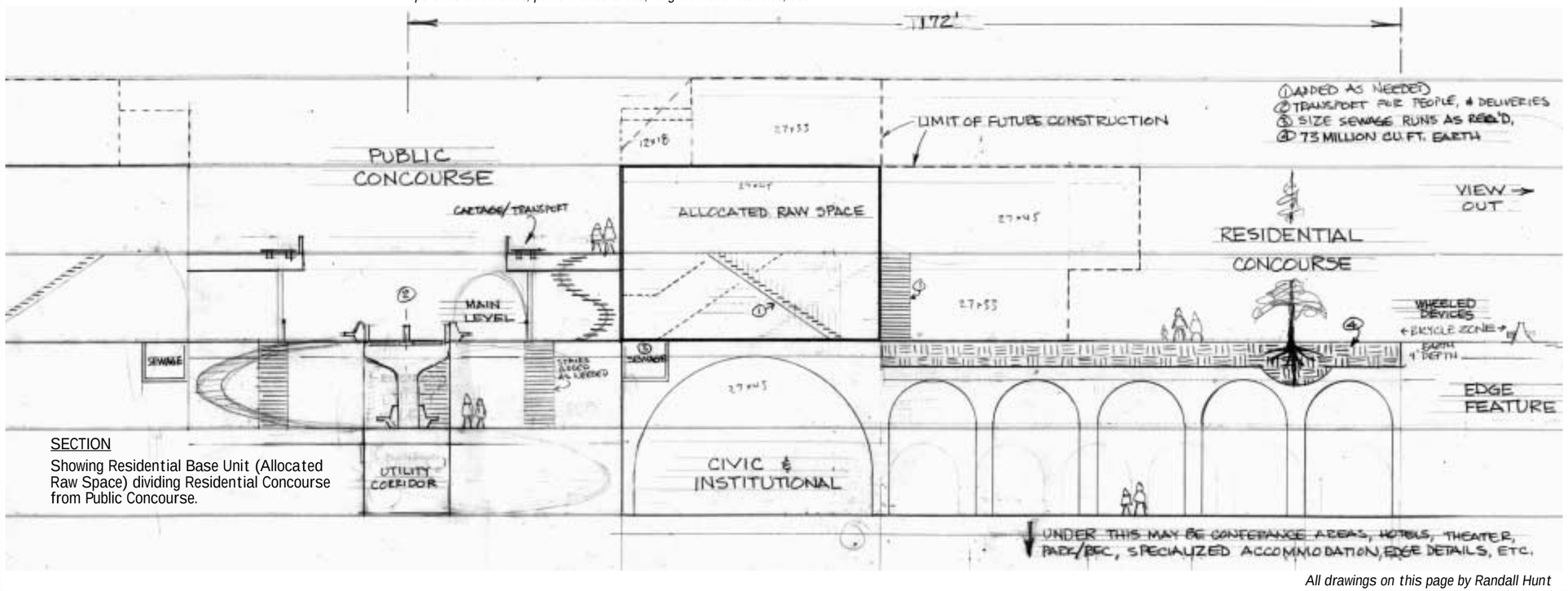
The programs used to create this image >>> made it quick and easy to get a feel for relative sizes and establish basic parameters. These parameters are guidelines, not set values. The plan assumes the following parameters:

- 16' wide public street
  Actual width should vary and not necessarily have parallel sides; occasional widening creates piazzas, as suggested here.
- 27' x 45' allocated raw space
  This is just over 1200 sq.ft, laid out in roughly a golden rectangle. The street width of 27' respects Alexander's suggestions in Pattern Language.
- 27' x 45' plot for development
  An earth plot that may be planted or built upon, within restrictions discussed elsewhere.
- 45' deep greenbelt "Commons"
  To insure that no plot is isolated.
- Edge Detailing, width varies
  May include any, not necessarily all, of: bicycle path, transport services, perches & lookouts, performance areas, neighborhood facilities, etc.

Public
Residential Raw Space
Res. Developable Space
Commons
Park Land
Civic Facilities
Edge Feature



Inner Residences	34
Outer Residences	56
TOTAL	90
Base Population	288
Max. Population	1360



SECTION

Showing Residential Base Unit (Allocated Raw Space) dividing Residential Concourse from Public Concourse.

All drawings on this page by Randall Hunt

Excerpts from the arcology discussion list

http://groups.yahoo.com/groups/arcology

I think the best approach is to design the whole structure to be passively energy efficient, using these kinds of features:

- Passive solar principles to control internal heat (orientation, ventilation);
- Sod roof with rooftop watershed;
- Thermal mass of the structure and in materials beneath it;
- Variable-transparency windows; they should be coming online in the next few years;
- Construction with recycled materials.

Implementing a few of these ideas might help minimize the overall energy budget of the structure.

- Elevators with regenerative braking? Sure, part of the whole package.
- We could have a few incremental, trickle-charging sources like turbines in downspouts.
- Mounting wind turbines and PV arrays all over the surface of the structure couldn't hurt.

—Jim Galasyn

* * *

I found my refs on air wells: the ancient Greek city was called Theodosia, which, according to an article in the Seattle Times, December 2, 1991, D1,

"...apparently captured water from 13 pyramids of loose limestone rock. The pyramids averaged nearly 40 feet high and were placed on hills around the city. As wind moved air through the heap of stone, the day's cycle of rising and falling temperature caused moisture to condense, run down, and feed a network of clay pipes.

"One archaeologist calculated a water flow of 14,400 gallons per pyramid per day, based on the size of clay pipes leading down from each device. Vila's group thinks that estimate is far too high and estimated a more modest 520 gallons, still more than five times what nonengineered condensation could account for.

"'We still don't know how the Greeks stumbled on it,' said Henri. "Five centuries before Christ and they knew how how to do it, and now it's forgotten.'"

I have a lot more info on air wells, thanks to Rex Research (PO Box 19250, Jean, NV, 89019). They could really help out an arco's water supply.

—Jim Galasyn

ARCOLOGY WORKING PAPERS

DATE	SCALE	#
JUN, 2001	ANALOG	1a
DRN BY NOTED	REV	