

Urban Sustainability: Village Concepts of Civitas

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INTRODUCTION

A new model for human settlements is proposed that is based on human diversity and dimensions. Many of the characteristics of the traditional village allow pedestrian communication as well as proximity to rural and natural areas. Other time-tested themes include the importance of animals, and the critical role of public spaces, not as streets for transportation, but as fora for human interaction.

Visible design that expresses interdependence is recommended; not assumptions about autonomy, no effortless eco-consciousness, and not invisible sustainability. The visibility of accountability in all areas is necessary for sustainability to have recognizable meaning. But sustainability must always include time proven human values, and human values must include nature values.

VILLAGE DIMENSIONS

The organic urban village is a proposed new model for human settlement - a paradigm radically different from the capitalist, egocentric and largely lifeless model now being built globally. Not only is this existing practice not sustainable itself, but it adds monumentally to the global environmental degradation and damage by previous human development. Thus it is both inhumane and unhealthy. And its degradation is accretive.

It is proposed that this new village model for the built environment should be supportive of many living things. If built environments are as receptive of many living things as in nature, then they are likely to be healthy for both the human family and for the global biological community.

The history of human cultures demonstrates how sustainable communities must be integrated with the natural support potential of the surrounding countryside. When that informed relationship is ignored or mistaken, the human culture is displaced or disappears such as the Anasazi culture of the Colorado Plateau in the arid southwest of the USA of a thousand years ago.

Monoculture is equally fatal for human settlement as well as for mechanized agriculture. The long term results of lack

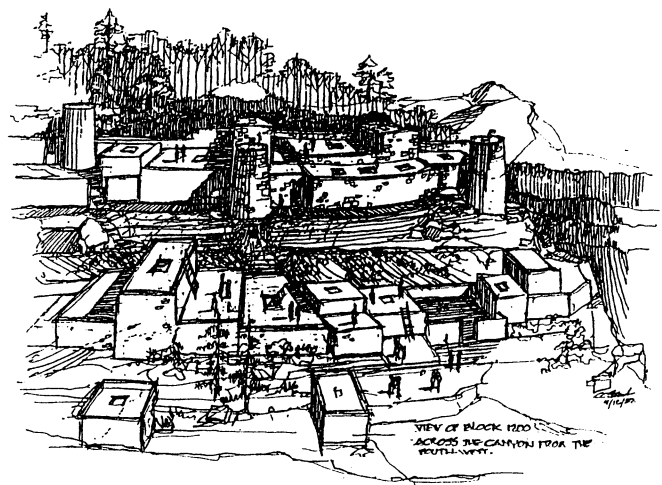


Fig. 1 Anasazi Neighborhood at Sand Canyon Pueblo

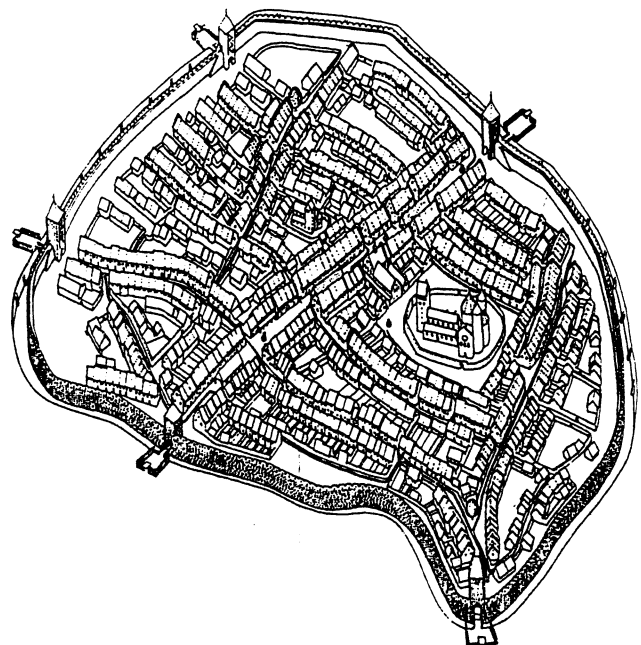


Fig. 2. Finite Urban Dimensions at Freiburg, AD 1120

of diversity must be a lack of resilience in all living things. Cities are no exception.

Whether we call a successful settlement a “village” or a “city,” thriving permanent communities have always had finite size. The dimensions of urban success have always related to easy human walking distance. A diameter of one mile is a comfortable and finite dimension common to many of the great cities of the past, and to viable towns and villages today.

Such a village dimension allows all residents to have access to each other, but the countryside is never far away. Thus the immediate support relationship of the surrounding land that characterizes all cities is always apparent. Today’s cities of many millions have eliminated any concept of land support. So here the term “village” is used to emphasize both size limitations of access, and support relationship to countryside necessary today, that must be both physically real and visibly expressed.

PUBLIC SPACE

Community space is where humans come together. The social necessity of people to live together goes back to the emergence of human kind. Thus the street as a form of public space may

indeed be more important than the private space in the design of human settlement. Streets for vehicles are a relatively new invention, and a displacement of the original purpose of public space.

Historically the street is the ultimate multi-use built space. It provides not just an area of shared access, but is the place of both work and pleasure. The processes of most human activity are revealed in public spaces. The street is the source of knowledge about the community.

The public space is the physical forum for the exchange of ideas about the human condition. Here the human drama, sometimes amusing, sometimes tense, can unfold without the constraints of the stage of a theater, or the video format of television. This first hand community event is a perceptual experience to engage all human senses.

Community events that establish and continue an orderly society must have a common place to enact their repetitive and intense expressions of shared belief. There must also be a ritual place to express the tensions between aspects of that community belief. The passions and tragedy of the human condition must take precedence in the public space over all other activities such as work, commerce or transportation. These pageants that communicate the essences of life on earth and



Fig. 3 The Easter Pagent at Antigua, Guatemala.



Fig. 4. The Easter Pagent at Antigua, Guatemala.

their ritual resolution must be endlessly re-enacted to maintain the continued fabric of shared beliefs. These enactments always involve all ages and all strata of a society - all have their place. And the same society provides all the participants - both actors and audience are part of the same family.

In the public space we meet the diversity of the human family and their unique qualities. In the pre-industrial Pedestrian City and even in its industrialized counterpart, the Bicycle City, we can encounter and confront the variants of our human species in a direct way.

Thus the bicycle can extend the dimensions of the settlement without necessarily destroying human scale or eliminating access to all parts of the settlement. The bicycle by allowing immediate experience adds new dimensions to the size of public spaces and also to the perception of the human scaled settlement.

NATURE

Vegetation has always been a part of the built environment, whether as an incidental event, or as a living expression of the ordering of public space. A tree lined street in Ponte de Lima, Portugal is an ideal expression of that union of human needs and natural resources that must characterize sustainable global development standards.

As human artifacts increasingly dominate the public space, the presence of the natural world becomes more precious. In the heavily asphalted and car dominated desert city of Phoenix, the artistry of a decorative fence underlines the importance of the palm trees. The famous 1624 etching by Jacques Callot variously named "The Fair at Gondreville" or "The Holiday at Xeulley" mostly shows a single magnificent tree. Even a

single piece of vegetation can symbolize the humanized meeting place that not only celebrates an event for the Lorraine Nobility, but provides environmental shelter and conditioning.

Trees are admired everywhere by humans for their life sustaining qualities. Their shelter through shade: their purification of the air and their cooling through evapo transpiration have often been scientifically documented. But trees add qualities to the human experience that are much more difficult to document. Trees have native species indigenous to every climate where humans live. Trees extend our consciousness of our place in the living world as well as economically define both public and private outdoor spaces.

Every culture through its artistic expressions makes statements about the place of the natural world within the built environment. Every culture ignores nature in its built environment at its peril. For instance, the highly disciplined Zen dry garden of Japan expresses in its austerity the critical balanced relationships between nature and the built environment. The wall enclosed Ryoan-ji Garden of 1499 at the Dragon Peace Temple, Kyoto, makes such a statement with 15 rocks in a large plane of raked gravel.

The human need for reminders of the natural world continues to characterize habits in the largest and most artificial of late industrial cities. The potted plant, the bouquet of flowers are among the civilizing patterns of all economic classes in all cities today. Concepts of wilderness areas and nature preserves as integral parts of development strategies provide opportunities for recreation within walking distance of home. Biological diversity can be enriched by parks and stream banks that are allowed to bloom in season without pruning or cultivation.

But present concepts about transportation especially automobiles consuming urban public space must be revised in a



Fig. 5 The Tree as Public Meeting Place



Fig. 6. The Natural World Aesthetically Interpreted in the Built Environment



Fig. 7 The Flower Shop on the cover of New Yorker Magazine

sustainable future. By depending more on local production, the extensive hauling and warehousing of goods and foods could be reduced. Streets could be returned to people as designed public space.

ANIMALS

Since animals have had intimate relationships to human successes from the earliest times, animals might continue to have an integrated place in human settlements.

Animals traditionally provided food and transportation as well as a reference of character and importance. They have extended human power in every way. Yet today we take them for granted or ignore their presence. In a 1969 scholarly publication of Medieval Drawings, the drawing of "St. Martin and the Beggar," c. 1200 is discussed in its origin and interpretation. Described is how the saint gave half his cloak to a naked beggar. Not mentioned is the horse!

Some tiny animals such as fleas that live on humans maybe should not be encouraged to participate in the future human habitat. But other tiny animals feed humans. The snail season begins with the new leaf growth of the grape vine. The cuisine of snails would not be possible if they were eliminated as a pest.

Birds can be critical waste converters - the sea gull in Canada is a protected species because of its meticulous hygienic role, not because it is endangered in numbers. Pigeons are among the most populous of urban birds. But pigeons are not so popular especially as human food because we know what they eat. And they must have a place.

But dangerous or unpopular animals must also be accommodated by human development. In many cultures the snake, even when poisonous, is respected and never harmed. Here a rattlesnake is warming up in a sunny niche in spring. Animals are our nearest living counterpart and thus become a mirror of our human qualities. Our pets are not only living objects for mutual admiration, but also provide different alliances than



Fig. 8. Animals are Critical to Human Success

fellow humans. One can play with a dog differently than with a person.

Thus animals have been critical to human development in providing muscle power and food as well as spiritual support. These roles must surely continue and our architecture must intimately accommodate them. Both physically and emotionally animals are an essential and united part of our global human accommodation. They need a place in our organic community.

The intimate relationship between humans and animals is often celebrated by sharing a common house. The domestic architecture of rural northern Europe and north India provides prototypes from other times and cultures. A 18th century farm house from north Germany has animal pens on the two long sides of the house with the people rooms across the end. Both surround their collective work space.

A si-milar arrangement is found in Schleswig where the climate is very windy. Both animals and people are sheltered within the same aerodynamic form with an attic full of hay protected by trees. What is an appropriate architectural configuration for a post industrialized culture in the 21st century? Will it even be allowed in our cities?

CLIMATE AND AUTONOMY

Although the critical function of architecture in providing shelter should be well understood, we continue to build dumb boxes. Whether built of the simplest or the most sophisticated materials, response to climate as well as appreciation of the natural environment should be elementary design qualities. "Intelligent" buildings are those that work bioclimatically and are open to nature. "Dumb" are those that are ignorant of their place on earth.

Some of the most creative architects of the world have created prototypes of passive heating and passive cooling, based on local climate. Bioclimatic principles can be the generator of creative architecture not just for the suburban one family house, but for all building types.

The inclusion of a sunspace in a house design for a cold climate illustrates how passive principles can enrich life style.

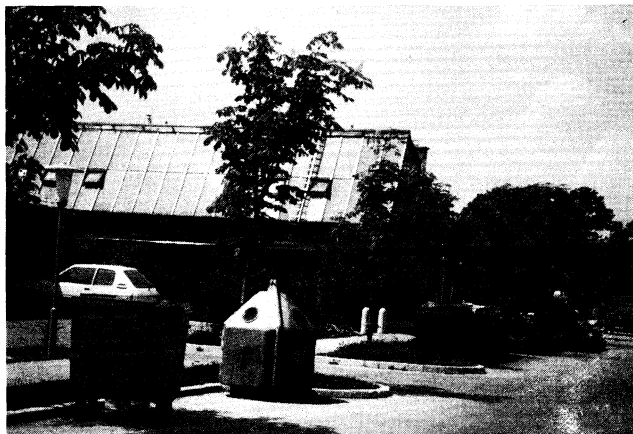


Fig. 9. The Practice of New Environmental Ethics Requires New Urban Design

The sunspace is an attractive winter use room that can also be a garden for vegetables and flowers, adding the domestic dimension of growing things. This is an elementary example of sustainable technologies used to condition buildings and to humanize built space, just as daylighting is in an office building. Not discussed is construction with materials that have accountability in the global environment whether that be straw or aluminum.

But the goal should not be the autonomy of the individual building, but the deliberate understanding and expression of shared community responsibility. In the newest old country in Europe, in Ljubljana, the capital of Slovenia, sustainable technologies are already present: the stacked firewood for backup in a solar heated house and the recycling bins for different types of garbage. The community ties are visible in the raw technology. But the architecture still needs to be designed.

CONCLUSION

Many architects today agree there can be no universal architecture, no ideal building design that could be effective if reproduced endlessly around the world. But the alternative free form architectural and development pursuit of interest and diversity could provide an equal horror, a tower of Babel that could add to the disorder and non-sustainability of the built environment.

The "organic village" is proposed as a concept for the sustainable post industrial future. This is not as a physical model of the pre-industrial village constructed of organic and temporary materials such as romantically painted by Rousseau (1812-1897). Rather the words "organic village" should describe performance criteria:

- limits to size - the neighborhood pedestrian scale
- integration of living things - plants and animals
- physical design of the built environment that makes visible the connections to the natural world.

Accountability in all areas is the mark of sustainability. But sustainability must include human values; and human values must include nature values. All must find expression in a new civitas.

ILLUSTRATIONS AND SOURCES

- ¹ View of Block 1200, across the canyon from the southwest, sketch by Calvin Straub. Straub, Calvin; and Bradley, Bruce. *THE ANCIENT RUINS SPEAK - ANASAZI ARCHITECTURE AT SAND CANYON*. ca 1986 unpublished.
- ² Diagram of medieval Freiburg im Breisgau, Germany, AD 1120. Rothstein, Fritz. *BEAUTIFUL SQUARES*, 1967, Edition Leipzig. p.8.
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- ⁵ *The Fair at Gondreville (or, The Holiday at Xeuilley) Etching*, ca. 1624 / 25. Daniel, Howard, ed. *CALLOT'S ETCHINGS*, 1974, Dover Publications, New York. Plate 195.
- ⁶ *The Dry Garden, Ryoan-ji, 1499.* (Print undated) Treib, Marc; and Herman, Ron. *A GUIDE TO THE GARDENS OF KYOTO*, 1980, Shufunotomo Co., Tokyo. p 2.
- ⁸ *St. Martin and the Beggar. Bede, De locis terrae sanctae*, et al. Tournai, ca. 1200. Evans, M. W. *MEDIEVAL DRAWINGS*, 1969, Paul Hamlyn, London. Plate 45.

