Affordable Housing and Community Design

BOOKS


First sentence: "The thinking we use to redesign society stems from three essential concepts: doing the right thing, focusing on what we want, and thinking systematically"


As an innovative thinker about building and planning, Christopher Alexander has attracted a devoted following. His seminal books--The Timeless Way of Building, A Pattern Language, the Oregon Experiment, and The Linz Cafe--defined a radical and fundamentally new process of environmental design. Alexander now gives us the latest book in his series--a book that puts his theories to the test and shows what sort of production system can create the kind of environment he has envisioned.

The Production of Houses centers around a group of buildings which Alexander and his associates built in 1976 in northern Mexico. Each house is different and the book explains how each family helped to lay out and construct its own home according to the family's own needs and in the framework of the pattern language. Numerous diagrams and tables as well as a variety of anecdotes make the day-today process clear. The Mexican project, however, is only the starting point for a comprehensive theory of housing production. The Production of Houses describes seven principles which apply to any system of production in any part of the world for housing of any cost in any climate or culture or at any density. In the last part of the book, "The Shift of Paradigm," Alexander describes, in detail, the devastating nature of the revolution in world view which is contained in his proposal for housing construction, and its overall implications for deep-seated cultural change.


Complex social systems like the human body rely a great deal on the sharing of parts. Just as the mouth is shared by the sub-systems for breathing, eating, speaking, etc., so individuals and organizations act as parts for a multiplicity of social systems. Just as there are physiological switching mechanisms to prevent us choking too often over our food, so there are social mechanisms to prevent us having too many Charlie Chaplins dashing out of factories to tighten up buttons on women’s dresses (in Modern Times). I think that it is this sharing of parts that enables social processes to grow for quite long periods without detection. If they could grow only by subordinating parts entirely to themselves then they would be readily detectable. If, however, their parts continue to play traditional roles in the existing familiar systems, then detection becomes difficult indeed. The examples that most readily come to mind are the pathological ones of cancer and incipient psychoses. Perhaps this is because we strive so hard to detect them. In any case, healthy changes in physical maturation, personality growth or social growth typically follows the same course. Once we are confronted with a new fully-fledged system, we find that we can usually trace its roots well back into a past where it was unrecognized for what it was.

Source location for this excerpt: [http://members.shaw.ca/compilerpress1/Anno%20Emery%20&%20Trist.htm](http://members.shaw.ca/compilerpress1/Anno%20Emery%20&%20Trist.htm)


This comprehensive case study chronicles the four decade history of Chicago’s Wentworth Gardens public housing residents’ grassroots activism. It explores why and how the African-American women residents creatively and effectively engaged in organizing efforts to resist increasing government disinvestment in public housing and the threat of demolition. Through the inspirational voices of the activists, Roberta Feldman and Susan Stall challenge portrayals of public housing residents as passive and alienated victims of despair. Review source: [http://www.cambridge.org/us/catalogue/catalogue.asp?isbn=0521593204](http://www.cambridge.org/us/catalogue/catalogue.asp?isbn=0521593204)


Americans still build millions of dream houses in neighborhoods that sustain Victorian stereotypes of the home as 'woman's place' and the city as 'man's world.' Urban historian and architect Dolores Hayden tallies the personal and social costs of an American 'architecture of gender' for the two-earner family, the single-parent family, and single people. Many societies have struggled with the architectural and urban consequences of women's paid employment: Hayden traces three models of home in historical perspective—the haven strategy in the United States, the industrial strategy in the former USSR, and the neighborhood
strategy in European social democracies—to document alternative ways to reconstruct neighborhoods. 

Source location: http://www.wwnorton.com/npb/nparch/hayden730948.html


Book Description: This first full-scale history of the development of the American suburb examines how “the good life” in America came to be equated with the a home of one’s own surrounded by a grassy yard and located far from the urban workplace. Integrating social history with economic and architectural analysis, and taking into account such factors as the availability of cheap land, inexpensive building methods, and rapid transportation, Kenneth Jackson chronicles the phenomenal growth of the American suburb from the middle of the 19th century to the present day. He treats communities in every section of the U.S. and compares American residential patterns with those of Japan and Europe. In conclusion, Jackson offers a controversial prediction: that the future of residential deconcentration will be very different from its past in both the U.S. and Europe.


From The Woman Source Catalog & Review: Tools for Connecting the Community for Women; review by Ilene Rosoff

Does the idea of not having to cook meals for yourself or family every night, deal with traffic on your block, or worry when your children are out playing in the neighborhood appeal to you? If the answer is yes, you may want to consider exploring cohousing, a concept that originated in Denmark in the early 1970s and has spread throughout Europe. In Cohousing, a number of European cohousing communities are profiled. Although each community is a unique reflection of its members' tastes and desires, there are some common components, such as parking lots on the perimeters of the community for pedestrian safety, a common house where meals can be shared, and recreational facilities housing various community activities and services. With all the responsibilities entailed in managing a home and/or a family, cohousing is a solution for finding sufficient time to relax and spend with the people who are important to us. (The authors have recently started The Cohousing Company, a design and development company formed specifically to assist groups interested in planning and implementing cohousing in this country.)


The 27 homes in Good House Cheap House prove that good design doesn't have to cost a fortune. What goes into making a good, cheap house? As writer Kira Obelensky discovers, there are three main ingredients: adventuresome homeowners who are actively involved; cutting-edge architects and designers who can solve tough design challenges; and an array of innovative uses of materials. Industrial bridge washers make for gorgeous mantelpiece rosettes, old concrete subflooring is given new life with rich-hued stain, and glass sliding doors make for windows that are oversized and affordable.
From a Texas farmhouse to a loft in St. Paul, to a prefab cabin on the Wisconsin prairie, these houses, in which anyone would feel at home, display a wonderful mix of design smarts and budget savvy. "Good House Cheap House is chock full of great ideas and creative solutions for those of us on a budget—but even the less financially-challenged can learn a thing or two about stylish and innovative design."

--Charles Burbridge, designer, HGTV's Design on a Dime

"The cookie-cutter house trend has been around long enough. With its outside-the-box ideas and great resources, Good House Cheap House proves you can build a unique space without emptying your bank account."

--Amber Jones, Editor, do! Magazine


Book Description (Source: http://www.amazon.com/gp/product/0471355453/103-9423888-6838211?v=glance&n=283155)

The only how-to guide to community design written from the design professional's perspective. In this groundbreaking guide to the increasingly important discipline of community design, a leading international expert draws upon his own experiences and those of colleagues around the world to provide proven tools and techniques for bringing community members into the design process successfully and productively. The first and only how-to guide on community design developed for design professionals, *Community Participation Methods in Design and Planning* features:

* Fifteen case studies chronicling community design projects around the world
* Coverage of educational facilities, housing, and urban and rural environments
* Design Games—a proven, culture-neutral approach to educating participants in their design options and the consequences of their choices
* Proven techniques for fostering community participation in the design process
* Checklists, worksheets, questionnaires, and other valuable tools

*Community Participation Methods in Design and Planning* is an indispensable working resource for urban designers and planners, architects, and landscape architects. It is also an excellent resource for students of those disciplines.


Affordable Home Design showcases a wide array of solutions to this same architectural challenge of good design and structure on a budget. The projects featured include extensions of houses and apartments already in existence, ecological housing design, sustainable and structurally cost-effective homes, and new buildings in strictly coded conservation zones. Through more than 250 full-color photographs, this essential book reveals how today's architects are able to adapt to the necessities of a more affordable budget when approaching the always exciting necessity of designing a home.


For the typical American homeowner, Great Houses on a Budget presents case studies from across the country that achieve high style at an affordable cost. Most homeowners can only fantasize about owning and
living in beautiful dream homes designed by top architects -- houses that are well beyond the reach of average consumers. This splendidly illustrated volume promises to provide a reality check by presenting beautifully designed houses by the same architects, but with one exception. The houses in this book were designed and built for clients with high standards, as well as modest budgets. Fifteen in-depth case studies display the work of some of today's finest architects in locations ranging from California and Connecticut, to Virginia and Oregon. Each project includes lavish photography accompanied by detailed discussion of the economical construction techniques implemented in each house. With an in-depth look at square footage costs, design techniques, and low-cost building materials, Great Houses on a Budget will provide readers with everything they need to plan a great home on even the smallest budget.

Tucker, William. The Excluded Americans: Homelessness and Housing Policies (Ragnery) and Zoning, Rent Control, and Affordable Housing. Cato Institute.


1. Sam Bass Warner, Jr., author of Streetcar Suburbs (Harvard) : In tracing the story of public housing from Puritan times to the present, Professor Vale pays special attention to the spatial dimensions of poverty management. His is not a mechanical tale of segregation, but a careful presentation of the placement of the poor in response to the policies of aid and discipline. This book, at once both an excellent history and an unusually thorough Boston case study, illustrates the continuing cultural and political ambivalence that plays itself out in ever-changing environments for the poor.
2. Sir Peter Hall, author of Cities in Civilization: Culture, Innovation, and Urban Order : Lawrence Vale's major study throws new and important light on the contradictions and dilemmas of American public housing policy over the past half-century, as they worked themselves out in one of the nation's great cities. It has vital messages both for scholars of public policy, planning, and urban studies, and for urban policy-makers, both in the United States and the wider world. This is a major contribution to the urban literature. Source location: http://www.amazon.com/gp/product/0674002865/103-9423888-68382117?v=glance&n=283155


This multidisciplinary work, which aims to summarize and synthesize current information on housing, draws on sociology, economics, urban studies, political science, architecture, and law to provide broad coverage of the pertinent concepts, organizations, issues, and policies. The 600 or so entries vary in length, with longer entries containing extensive discussion as well as relevant research, critical analysis, policy information, and historical background as appropriate. Though the book focuses primarily on the United States, it includes some international material, and various points of view are represented. Cross references, indexes of subjects and cited authors, and brief bibliographies on most entries add to the encyclopedia's usefulness. About 240 academics and professionals in housing or closely related fields contributed to this volume under the leadership of van Vliet, who has written and edited several works on housing. He notes that the language used is comprehensible across subject specialties and internationally. A welcome addition to the housing literature, which has lacked a general encyclopedia, this is sure to be the standard reference for professionals in housing and related fields as well as policymakers, students, and the educated public. An excellent purchase for all academic and public libraries. AMary Jane Brustman, SUNY at Albany Libs. Copyright 1998 Reed Business Information, Inc.


Synopsis Location: [http://www.amazon.co.uk/exec/obidos/tg/stores/detail/-/books/0470852895/reviews/202-1939184-8367007](http://www.amazon.co.uk/exec/obidos/tg/stores/detail/-/books/0470852895/reviews/202-1939184-8367007)

Why are homes so expensive to buy and to maintain? Construction has emerged as a mainstream political issue. Yet the building trade is one of the world's weakest: it is fragmented, barely globalized and behind other sectors in introducing disruptive innovations to its basic processes. The modest worldwide scale of prefabricated building confirms how construction remains a 19th-century affair, not a 21st-century one. Drawing on the latest technologies that have emerged both inside and outside the sector, *Why is construction so backward?* forms a detailed, practical alternative to the conventional wisdom in building design and urban planning. It is a powerful call for reform, and a sharp attack against architecture as social engineering and environmentalist dogma. 'Very compelling…a significant piece of research and thought leadership. Essential.' Colin Bartle-Tubbs, UK Operations Director, Deloitte 'Welcome and timely…takes on an industry that has reveled in complacency for too long.' Bernhard Blauel, Principal, Blauel Architects 'The authors are prepared to be daring, reframe the question and posit new paradigms. Reflecting effortlessly across the literature of property, business, market research and construction, the book’s kaleidoscope of ideas, examples and images gives it a refreshing depth of insight and breadth of vision.' John Worthington, Founder, DEGW 'A tour de force of polemical provocation. This timely work forces one to think about construction in the broadest terms.'
ARTICLES


A review of "Housing: new alternatives, new systems!", by Manuel Gausa, 1998, described by this reviewer as "perhaps the most comprehensive collection of architect-speak in existence..." with, however "an in-depth compilation of contemporary housing which is breathtaking in its diversity."


Published by the National Apartments Association (Article Location: http://www.nmhc.org/Content/ServeFile.cfm?FileID=4724)


This article compares the regional planning of 15 very different coastal zones in the United States in attempt to understand their operation and the effectiveness of their planning. The zones evaluated did not use typical planning tools, and therefore it is informative to investigate their “goals, environmental and socioeconomic
settings, management approaches, land use planning tools, and keys to success for special area planning under state and territory coastal programs.”

34 out of 35 coastal states have adopted the national coastal management program administered by the National Oceanic and Atmospheric Administration/Office of Ocean and Coastal Resource Management (NOAA/OCRM). Areas were evaluated based on the areas of concern to participate in the program. The Special Area Management Practices were then investigated to determine if comprehensive regional planning was taking place and to what extent, or if “subject-oriented” plans were taking precedent (wetlands, ports, etc.). (DM)


Low income housing project for bicycle rickshaw drivers in Vellore is being developed by an international collaboration of three organizations: Centre for Development Madras; Pacific Architecture; and the Center for Housing Innovation of the Univ. of Oregon.


Total Quality Management (TQM) as an innovation in the British construction industry is studied to evaluate its effectiveness.


The Grow Home, a demonstrative project started on the McGill campus in 1990, tapped a market within affordable housing. The project initially sold for $76,000, and units spread like wildfire. The attractive row-house buildings have flexible layouts, low construction cost, low operating costs, and their own yards. The article compares financing and construction costs of the Grow Home with standard construction. It also talks about the history of its success, and the benefits of creating “the Honda Civic” of housing. The article includes images of three plan layouts, and photos of grow homes infilling neighborhoods in two different cities in Canada. (DM)


Considers household income, level of education, and receptivity to innovation in a study of consumer preferences.


The twin issues of affordable housing and homelessness are discussed in this collection from a comparative international perspective. The central theme in the essays is that advanced industrial societies, including socialist countries, are undergoing significant changes in their ability and willingness to provide affordable housing to their citizens. Friedrichs points out that affordable housing and homelessness are interrelated
problems in that the "new" homelessness is primarily the result of structural economic changes and a shortage of affordable housing. - By Howard A. Savage


Idea about the direction and pace of the changes in the way housing is designed and built in the United Kingdom.


Today, the gay and lesbian community signals the presence of a diverse and creative population that not only is important to high-tech innovation but also has taken the initiative of moving to distressed urban neighborhoods and in doing so has helped bring economic vitality to these neighborhoods.


Affordable housing becomes a receding goal when the percentage of U.S. households paying over a quarter of their income for rent is increasing. John Gilderbloom and Richard Appelbaum show that sociologists could make a major contribution to debate about a housing policy designed to reverse such trends - if such a debate existed. Combining a critical review of a diverse literature with original analyses, the authors develop two lines of argument. First, institutions and organizations affect characteristics of rental housing that economists attribute to market forces. Second, affordable, habitable housing is a "universal national entitlement," and it requires a federal housing program that creates a non-market sector. By Judith J. Friedman


“This paper summarizes a comparison of three alternative plans for a demonstration development site for environmental impacts, particularly stormwater quantity and quality, and costs of development. Two of the three alternatives are representative of neighborhood plan types in many areas of the United States - a conventional low density pattern typical of many subdivision developments, and a more dense, mixed use new urbanist-influenced pattern. A third less common but lower environmental impact plan represents similar density and land use mixes to the mixed use plan with greater open space, urban forest and stormwater features.” Paper presented at the joint ASLA-CELA conference in Boston, Sept. 1999.


His thoughts on the goals and policies of the Community Redevelopment Agency, which focuses on affordable housing


Two SRO apartment developments, Kirby Lofts and L'Octaine, combine apartments with retail and restaurant space. Architect: Rob Wellington Quigley


Affordable Housing built of Larch. Architects: Code Arkitektur


It may not be as "wild" as advertised, but new Housing at Almere, by UN Studios, makes a strong case for residential innovation.


"The U.S. Department of Housing and Urban Development has announced a nationwide competition - the Building Innovation for Homeownership program - to accelerate the adoption of innovative building and development techniques that will make houses more affordable."


Almere as a model for British housing construction.


On the M4I, the Movement for Innovation, established to bring about a radical improvement in the way in which the construction industry and its clients work together.

PAPERS


"Uniting for Solutions Beyond Shelter is a 10-year action plan that brings together the business, nonprofit, and public sector communities to address the challenging issue of homelessness at its core, rather than manage it at the margins. It reflects my strong belief that every individual and family deserves safe, affordable housing—a goal we can achieve through proactive, coordinated action and investments in cost-effective initiatives that solve homelessness." - Mayor Michael R. Bloomberg


Abstract: Many observers claim that we are in the midst of an “affordable housing shortage” or, even worse, an “affordable housing crisis.” The primary concern is that too many households live in “unaffordable” rental units. We hope to clarify the current debate by first measuring the size of the problem, then diagnosing its underlying causes and, finally, discussing treatments that policymakers should consider. While our review is hardly exhaustive, we conclude that a shortage of income is largely behind the housing affordability problem despite the current focus on housing. Policymakers should recognize that government financing of new housing units is unlikely to be a cost-effective response to low household income.

Hu, Yucum and Qiping Shen. *Systems Thinking in the Study of Housing Development in Hong Kong New Towns*. The Hong Kong Polytechnic University, Department of Building and Real Estate. 2000.

"In this paper, we have applied system dynamics to analyze housing development in Hong Kong new towns. Because housing development is concerned with many factors such as population growth, employment, personal income, gross domestic product and government policies, it is a complex social-economic system that demands system thinking for its solution. We have constructed a system dynamics model that attempts to describe housing development in new towns. In this model, the interactions of various factors in urban housing development are taken into consideration. The model has been implemented in a computer simulation package named “I think”. The simulation provides a trend of future housing development in Hong Kong new towns. These results can assist decision makers produce more appropriate plans for future housing development. We found that the application of system dynamics into housing development is a new and fruitful attempt."


Efforts to provide affordable housing are occurring at a time of great change. The responsibilities for implementing affordable housing are increasingly shifting to state and local actors. The market and demographic changes in the country are complicating the picture, as sprawling jobs-housing patterns and downtown revivals in some places are creating demand for affordable housing for working families and immigrants in both cities and suburbs. To help state and local leaders design fresh solutions to today’s affordable housing challenges, The Brookings Institution Center on Urban and Metropolitan Policy and the Urban Institute joined forces to examine the lessons of seven decades of major policy approaches and what these lessons mean for local reforms. This executive summary of the full report, funded by the John S. and James L. Knight Foundation, finds that past and current efforts to expand rental housing assistance, promote homeownership, and increase affordable housing through land use regulations have been uneven in their effectiveness in promoting stable families and healthy communities. The findings suggest guiding principles for local action, with important cautions to avoid pitfalls.

For at least three decades, study after study has documented New Jersey’s severe affordable housing shortage. This report from Legal Services of New Jersey’s Poverty Research Institute compiles such studies and data to present a current portrait of just how bad the housing shortfall has become. It is intended as a resource for policy makers and the public, to help energize and guide the urgent question of what should be New Jersey’s governmental response to this crisis.

The report was prepared primarily by Connie Pascale, Vice President and Assistant General Counsel at Legal Services of New Jersey, with assistance from colleagues Kristin Mateo and Anjali Srivastava. Our hope is that armed with information, at long last New Jersey’s leaders will guide the state toward a comprehensive and effective government-wide housing policy.


"This report provides a review of work undertaken to explore the use of systems thinking in a social housing setting. In particular, the research considered the effects on the delivery of housing management services and assessed efficiency gains arising."


High housing costs, poor housing quality and long commutes are putting the NY-NJ-CT metropolitan region at a competitive disadvantage in attracting and retaining a talented workforce, according to a regional housing study released today. The report, “Out of Balance: The Housing Crisis from a Regional Perspective,” is a collaborative effort of Regional Plan Association (RPA) and Citizens Housing and Planning Council (CHPC) to survey regional housing trends and identify housing problems that pose obstacles to regional development or diminish the quality of life.


WEBSITES/ ADDITIONAL RESOURCES

Amhearth H. Wilder Foundation  http://www.wilder.org/supportivehousing_0.html

Archvoices http://www.archvoices.org

Association of Community Design Resources http://www.communitydesign.org/html/resources.html

The Brookings Institute http://www.brookings.edu

The Cato Foundation http://www.cato.org

Community Development Society http://comm-dev.org

Community Resources http://www.communityresources.org

Development Training Institute http://dtinational.org
Design Advisor http://www.designadvisor.org

Design Matters: Best Practices in Affordable Housing http://www.uic.edu/aa/cdc/AHDC/website/

Doors of Perception http://www.doorsofperception.com

The Enterprise Foundation http://www.enterprisefoundation.org

Habitat for Humanity http://www.habitat.org

Housing Again http://housingagain.web.ca/index.html

Housing First http://www.housingfirst.net

Housing Prototypes http://housingprototypes.org/

Inhabitat http://www.inhabitat.com

Planning a Housing development http://www.enterprisefoundation.org/model

Project proformas http://www.enterprisefoundation.org/resources/ERD

The Housing and Community Development KnowledgePlex http://www.knowledgeplex.org/

National Community Building Network http://ncbn.org

National Multi Housing Council http://www.nmhc.org


New Village http://www.newvillage.net

Planners Network  http://www.plannersnetwork.org

Rose Fellowship  http://www.rose-network.com/resources/fellowship.html

Rudy Bruner Award for Urban Excellence  http://ublib.buffalo.edu/libraries/projects/bruner/

Rural Studio  http://www.ruralstudio.com

Shimberg Center for Affordable Housing  http://www.shimberg.ufl.edu/

Socketsite  http://wwwsocketsite.com

Stardust Organization  http://www.asu.edu/stardust

Affordable Housing and Community Design: Sustainability

ARTICLES


The Center for Maximum Potential Building Systems (Max’s Pot) built the Advanced Green Builder demonstration house on the outskirts of Austin with only local materials. It is the place where founder Pliny Fisk III and his wife “concoct environmentally sound and sustainable building technologies.” Both Calcrete and Solar-Tube were conceived there. The house uses Green Forms, an “open-ended” post and beam system as structure. The central concept is that the Green Forms provide the frame for site-specific (and therefore more sustainable) elements and finishes. This approach also leaves plenty of potential for personalization. Local climates are studied as well as attainable materials for cladding, insulation, and other surfaces from the area. Options may include rammed earth, adobe, straw wall, industrial by-products, and Styrofoam. The project also helps to sustain local businesses, distributors, and craftsmen by utilizing their services within their communities.

The article also mentions innovative composite materials that can be used in cladding, including mixing leftover wood fiber with plastic from recycled bottles to make hardy wood-like panels. Water sustainability is addressed with composting toilets and wetland integration. For further energy consumption reduction photovoltaic panels can be added to roofs, radiant heat can be distributed from floor slabs, and a gas-fired water heater can double as the heat source for the floor slabs. While the house (at time of article publishing) costs about $250,000, the goal is to build for $10 to $12 per square foot. The article includes photos of the house in Austin and images of examples of various site-specific cladding materials. (DM)


BOASE is an innovative national competition winning concept proposed by a team of students in Denmark. The primary themes of the project are affordable housing, mass production of units, and soil remediation that occurs through phytoremediation while the housing units sit above the petrochemically polluted site in a network of tree dwellings.” The units stand on stilts, and therefore allow rainwater and sunlight to filter down and nourish the soil-cleaning plant ecology. The provocative notion of developing polluted sites is rooted in the cheapness of land that no one wants to use- polluted land. The plants are expected to clean the top six feet of contaminated soil in a period of ten years, which, by some, may be worthwhile “rather than spending millions hauling the contaminated dirt to a landfill of treatment facility.” If the clean-up process does not occur as expected through phytoremediation, not all is lost; “even if the trees don’t manage to clean up the soil, they are sucking up water and evaporating it through their leaves… (it) won’t leach into groundwater supplies, taking pollutants with it.” Units are manufactured from lightweight fiberglass-reinforced plastic, giving them the advantages of lasting structural strength with minimal weight. In this project, the “home” becomes industrialized, a unit of mass production. The three technologies used in this project are: Gratzel Solar Cells, Fiberline Plastic Composites, and Phytoremediation. (DM)


Couling and Overmeyer have produced a model for areas outlying urban centers to become neighborhoods surrounding farming-land green spaces, rather than arbitrary parks and green spaces, commonly ordained by local zoning codes. The theory proposes that the residents maintain and work the “farm-land” and it gives back to them, monetarily, as well as enriching a closer-knit community than a typical suburb. The article includes a model for investment and return based in its proposed operations in an
area outlying Hamburg—the location of cet-0’s Fischbek-Mississippi project. The underlying concept is a “symbiosis of land for farming and land for building…Green areas are a combination of agricultural fields and domesticated plots, leased to an ecofarmer, or to the Mississippi Club, of which the new residents would ideally be members”(Couling p. 69). (DM)


On the potential provision of housing for the 4.4 million new English households predicted for the period from 1991 to 2016. Taken from presentations at the BRE 75th anniversary international conference, “Sustainable Construction: an Agenda for Innovation”.

Gifford, H. “Third Street: Can architects and builders work together to produce highly energy-efficient and affordable multifamily housing without any grant support? Two New Yorkers prove that it can be done.” Home Energy. v22, n5, p 24-29 Energy federation Incorporated. 2005.

Third Street considers the assemblies and methods utilized to create more energy-efficient apartment buildings in New York City. The buildings are located at 299 E. 3rd St. (38-family building) and 228 E. 3rd St. (22-family building) in Manhattan. The project was developed by Mary Spink and the architect is Chris Benedict.
The article denotes specific building assemblies that improve thermal and acoustical insulation. Specific wall sections are shown, as well as efficiency comparisons based on energy consumption and cost.
The article also implies concerns about the negative effect of funding sustainable projects through grants, relating this approach to the concept that one can only do good if funded. Another interesting issue exemplified by these projects is that buildings that may be extremely energy efficient and “green” to a great extent will never satisfy current LEED criteria because of certain detailing that, in a sense, make them even more sustainable. (DM)


BedZED is a prototype for sustainable high affordable housing complexes by Bill Dunster Architects. It is an example of high density suburban-urbanization in Sutton, England. Highlights of the project include live-work units, a community hall, south facing spaces and terraces. The one bedroom loft apartments have their own entrances and open onto a sky garden.
The article includes photographs, a site plan, an elevation, sections, and a sun study. (DM)


Sustaining Sustainability discusses a wide spectrum of issues related to spreading the desire for, and acceptance of, sustainable housing. The article theorizes the necessity for technological developments to push the viability of sustainability into mainstream construction. Koebel also articulates various circuits within the development and construction industries through which sustainable practices must spread if they are to effectively diffuse within our culture. Included issues are mass production, adaptability, change agents, codes, and policies (and their makers). The general message is that everyone needs the tools and the know-how, as collectively accepted across the industry, to progress in supporting and encouraging sustainable housing.
An interesting **theory on the method of diffusion and its characteristics** is delineated and discussed. Koebel's research designates certain “characteristics of innovations that influence adoption,” (Koebel p.79) including relative advantage, compatibility, complexity, trialability and observability. Koebel goes further into the issue of diffusion by discussing various initiatives in sustainable housing and their overall performance. (DM)

Makovsky, Paul. “Green Space: In the country's first green residential tower, a temporary showcase interior offers lasting ideas.” *Metropolis*. vol. 23, no. 3, pp. 118-120; Nov 2003

Makovsky outlines various sustainable furniture and finishes used at the Solaire in Battery Park City, New York. The Solaire is significant in that it is the country’s first high-rise sustainable apartment building. The interior design of the apartments was created by Stedilla Design. The article describes the innovative finishes and furniture and interesting descriptions of their origins and how they are designated as sustainable for this project. Perhaps most helpful are the actual names, manufacturers, and distributors of many pieces. Sustainable finishes and furniture mentioned include:

- Uba Tuba granite from Brazil
- Urea-free formaldehyde fiberboard cabinets
- Non-Urea formaldehyde parquet floors
- Reclaimed-recycled lines of carpet and furniture
- Abaca fiber instead of plastics
- A “less than 500 miles” philosophy, aiding in cutting embodied energy expenditure (DM)


Dwell Home II was constructed in Topanga Canyon, California as a test home for green design. It’s construction in such an isolated area prompted many questions about the true sustainability of remotelessness in this modern world, since a car must be used for traveling into town for commodities. Andrew Wagner facilitated a discussion/ interview with the homeowner Glen Martin and architect Frank Escher, prompted by questions written to Dwell magazine regarding the project.

In the project's defense, the convenience and viability of bus lines and telecommuting are available for use in the remote setting. Aside from those conveniences, Escher maintained that the building, when seen as siteless, is extremely efficient, performing well, and addresses “environmental questions that need to be addressed on any site.”

Dwell Home II cools itself, generates its own electrical power, uses a quarter of the water of conventional houses, and treats its own wastewater.

The article brings up the interesting notion that “in the 70’s, central Europe was going through what we are going through in California now. There were some people who were really interested in more intelligent use of resources and sustainable design…” (Escher p.116). (DM)


This article proposes three strategies for recentralizing the dispersed population epidemic in the United States on the grounds that **regional planning** is a substantial element in reaching a more sustainable lifestyle, and culture. The strategies are: “pricing goods and services to reflect sustainable needs, improving the magnetism of cities, and legislating enforceable regional plans.”

The article articulates the history of population dispersal away from cities and the ramifications of this trend. It then discusses the sustainability of a “spread city” in comparison to “traditional centers and community.” (DM)

The Pick of the Sustainable Crop reviews three of the top 10 Green Projects awarded by the AIA Committee on the Environment. The article gives background on the COTE selection process and categories that qualify their concept of sustainable design.

With narrative, photos, diagrams and sections, the innovative design aspects of the three built projects are elaborated.

The Pittsburgh Glass Center, in Pittsburgh Pennsylvania, has an innovative and effective heat recovery system and effective insulation and ventilation systems. It is an industrial building that houses hotshops, offices and exhibition space, designed by DGGP and Bruce Lindsey AIA.

Rinker Hall in Gainesville, Florida is the home of the M.E. Rinker School of Building Construction in the department of the University of Florida’s College of Design and Construction. Designed by Croxton Collaborative Architects + Gould Evans Associates, the building utilizes enthalpy wheel technology, passive solar design, and high-performance glazing.

A connection is made between daylighting and occupants’ circadian rhythms “connecting… to nature’s own circadian rhythm- allows occupants to experience what Croxton describes as ‘the most primitive, deep-seated aspects of comfort’.”

The Austin Resource Center for the Homeless (ARCH) is a 26,800 sf building that houses homeless temporarily and for the long term, while providing support programs in Austin Texas. The building was developed concurrently with Austin’s adoption of a new policy that the design of any new municipal building must follow the guidelines put forth by the U.S. Green Building Council for its LEED rating system. The project utilized the method of stack-cast tilt-frame construction, cutting down on the cost of formwork for concrete. Fly-ash was substituted for 45% of the portland cement in the concrete mix. A rain-water collection system was also developed to mediate Austin’s serious flooding problems (due to poor topsoil conditions).


In this journal article, BEPAS (building environmental performance analysis system) is explained and tested in a case study. It has been proposed that the system’s methodologies can be utilized on both new and existing buildings, evaluating their facilities (operation phase consumption and pollution), location, and materials. This article seems to have been inspired by the “rapid process of industrialization and urbanization” currently underway in China. It is also in response to the relative subjectiveness of sustainability evaluation checklist-type methods such as LEED. The BEPAS researchers responded to these issues by creating a more objective analytical approach to evaluating building performance, building upon the in-depth model of LCA (life cycle analysis). Results of the article’s case study show the test building’s environmental impact was 96.6% from the facility operation, and only 5.6% from the building materials. BEPAS attempts to include more variables than other existing analysis models of a similar genre.
Affordable Housing and Community Design: Gulf Coast Region

ARTICLES


Allais theorizes that housing typologies can have underlying social implications that must be recognized, especially when addressing affordable housing for poor predominantly African American populations in certain areas of the country. She specifically addresses the symbolism embodied in the shotgun-style housing that is commonly constructed as affordable infill housing.

The discussion of the possible sociological ramifications of typology arose through a competition for Delray Beach Florida’s Redevelopment Agency to design “affordable infill housing” in the predominantly black Mount Olive community.

Allais sites the works of Marylis Nepomechie and Heidegger as current and historical thinkers on the same subject; the architects’ argument about the pride of ownership.

The theories, as presented in this article, are very subjective, and tend to make difficult assumptions that sometimes waiver on the verge of being credible. However, the concepts put forth are extremely provoking, and are frequently neglected in design of affordable housing. The relationship between form and meaning can have great impact, and the architect needs to be held responsible for intervening in the best interest of mediating this phenomenon, downplaying the tones of social segregation in affordable housing. (DM)


This encyclopedic entry is a good introduction to the basic elements of procedures and plans typically set up for post-disaster reconstruction in the United States.

The organization of the short article is in five sections: the problem, evolution of planning for resilience, post-disaster and recovery plans, hazard mitigation plans, and conclusion.

One can imagine that these procedures are effected by the magnitude of key disasters in the country’s history, and thus do not include the devastation of Hurricanes Katrina and Rita, nor the resultant policies that may have been developed.

The article elaborates the primary elements of plans that address natural hazards, falling in two categories: post-disaster reconstruction and hazard mitigation. (DM)


An overview of the current search for inspiration for hope and design for a “newer Orleans” sets the precedent for the summary of 6 design proposals, or “six visions” to invoke a “spirit of possibility.” The introduction mentions that the Congress for the New Urbanism (led by Andres Duany) had an extensive design charrette to provide design guidance for Mississippi’s devastated regions, and it has now “seduced” Louisiana’s government as well. Artforum suggests that a fresh, inventive dialogue needs to commence.

These proposals do not situate themselves in the realistic realm of feasibility any time in the near future, but they are refreshing and drastically different takes on how a new city might reshape itself after a disaster of such enormous destruction.

The six teams were proposed by Artforum for proposals to be published, two each (one Dutch and one American team) for three segments: community (MVRDV, Huff + Gooden), urban icon (UN Studio, Morphosis), and landscape (West 8, Hargreaves Associates). The proposals did not address affordable housing within their broad assigned categories.

Recurring themes within the variety of proposals were: public space, connections (both communication and physical), pride and dignity, high density revitalized areas, reinvigoration and symbolism. (DM)

Shepard (as director of the Center for Urban and Community Design at the University of Miami School of Architecture) describes a studio project that integrated students and university with a struggling neighborhood whose population, property, and quality of life has drastically declined. The project was for students to design an affordable house after surveying the conditions, lifestyles and policies of its neighborhood and jurisdiction. The project set a precedent of trust between the University and the neighborhood that could potentially lead to similar future collaborations benefiting both parties, the academy and the struggling neighborhood.

The underlying concept driving the development of the project is Shepard’s assertion that “If vacant lots and abandoned buildings could be developed for low-and moderate- income families, the proportion of stakeholders could increase and the community pride of ownership could return” (Shepard p. 44). The studio culminated in the actual approval and eventual building of a two-story shotgun house designed by students who saw it take shape before graduating from architecture school. A local developer had become an enthusiast of the studio and funded the project. Shepard’s concept and its follow-through becomes an exemplar for students, teachers and developers wondering how they can do more in their “own back yard.” (DM)


This article critically expresses concerns related to the Congress for the New Urbanism’s (CNU) recent charrette and resultant design recommendations for post-hurricane redevelopment of 11 towns examined along the Mississippi Gulf coast. While the report calls for ample transportation (along with a virtual “concrete kimono”), it is also overtly concerned with regulating every facet of architecture in a someone’s aesthetic utopian ideal, it pays little attention to disaster mitigation and future damage precautions, nor sustainable strategies and environmental conscientiousness. (DM)


The house at 2516 East Church St. in Orlando, Florida is not, by most means “affordable at an appraisal value of $300,000. However, it is an example of the availability of systems, materials and labor available in Florida to conduct sustainable construction. The house includes 9-foot tall ceilings and a floorplan that supports good ventilation through airflow. Since termites are often a problem in Florida, no wood was used in construction. The house is clad, instead with wood fiber cement plank siding over steel frame. Flooring finishes include bamboo (impregnated with borates) and ceramic tile. Energy Star criteria were met for appliances throughout the house, reducing greenhouse emissions. In terms of water conservation, low flow fixtures and toilets were installed. Water is heated with solar heat, and the house has an integrated insulation system. The house, at 2,000 square feet, is “affordable to operate, and runs on $60 per month, for everything.” (DM)

PAPERS


In August of 2005, FEMA produced guidelines for coastal construction in a technical fact sheet series. The series of 31 fact sheets gives guidance and recommendations for coastal residential buildings. This guide was produced to improve building performance in high winds and flood conditions. The document includes information that incorporates national Flood Insurance Program regulatory requirements. Topics emphasized and illustrated are siting, structural connections, the building envelope, utilities and additional resources on various subjects. (DM)