I

Bourgeois Utopias: Visions of Suburbia*

Robert Fishman

Our suburban architecture...reveals the spirit and character of modern civilization, just as the temples of Egypt and Greece, the baths and amphitheaters of Rome, and the cathedrals and castles of the Middle Ages help us to comprehend and penetrate the spirit of previous civilizations.  

César Daly, 1864

Every civilization gets the monuments it deserves. The triumph of bourgeois capitalism seems most apparent in the massive constructions of iron and steel that celebrate the union of technology and profit: the railroad terminals, exposition halls, suspension bridges, and skyscrapers. One does not look to suburbia for the modern equivalents of the Baths of Caracalla or Chartres cathedral.

But, if like Daly quoted above, we are seeking the architecture that best reveals “the spirit and character of modern civilization,” the suburbia might tell us more about the culture that built the factories and skyscrapers than these edifices themselves can. For suburbia too was an archetypal middle-class invention, perhaps the most radical rethinking of the relation between residence and the city in the history of domestic architecture. It was founded on that primacy of the family and domestic life which was the equivalent of the bourgeois society of the intense civic life celebrated by the public architecture of the ancient city. However modest each suburban house might be, suburbia represents a collective assertion of class wealth and privilege as impressive as any medieval castle. Most importantly, suburbia embodies a new ideal of family life, an ideal so emotionally charged that it made the home more sacred to the bourgeois than any place of worship. The hundred years of massive suburban development that have passed since Daly wrote can only confirm his judgment that the true center of any bourgeois society is the middle-class house. If you seek the monuments of the bourgeois, go to the suburbs and look around.

Suburbia is more than a collection of residential buildings; it expresses values so deeply embedded in bourgeois culture that it might also be called the bourgeois utopia. Yet this “utopia” was always at most a partial paradise, a refuge not only from threatening elements in the city but also from discordant elements in bourgeois society itself. From its origins, the suburban world of leisure, family life, and union with nature was based on the principle of exclusion. Work was excluded from the family residence; middle-class villas were segregated from working-class housing; the greenery of suburbia stood in contrast to a gray, polluted urban environment. Middle-class women were especially affected by the new suburban dichotomy of work and family life. The new environment supposedly exalted their role in the family, but it also segregated them from the world of power and productivity. This self-segregation soon enveloped all aspects of bourgeois culture. Suburbia, therefore, represents more than the bourgeois utopia, the triumphant assertion of middle-class values. It also reflects the alienation of the middle classes from the urban-industrial world they themselves were creating.

I wish to understand the significance of suburbia both for modern culture and for the modern city first by tracing this urban form back to its origins in the late eighteenth century and then by showing the evolution of the suburban tradition of design to the present. I adopt this historical method in part because, like so many great inventions, suburbia has always seemed contemporary. In the United States, people are often surprised to learn that suburbs existed before 1945. Even César Daly was unaware that the mid-Victorian English suburbs he observed were the product of an urban evolution that was already a century old at the time he wrote.

Only by examining the eighteenth-century origins of suburbia can one grasp its radical departure from all previous traditions of urban structure as well as its crucial role in reshaping the modern city. In order to clarify this “suburban revolution” in metropolitan structure I must first define the precise meaning of the “suburb.” The word means literally “beyond the city,” and thus can refer to any kind of settlement at the periphery of a large city. A former mill town in the process of being swallowed up by an expanding metropolis, or a newly built industrial area on the urban fringes – these, strictly speaking, are as much “suburbs” as the most affluent bedroom community.

I am concerned here only with the middle-class suburb of privilege, and I shall use the words “suburb” and “suburbia” to refer only to a residential community beyond the core of a large city. Though physically separated from the urban core, the suburb nevertheless depends on it economically for the jobs that support its residents. It is also culturally dependent on the core for the major institutions of urban life: professional offices, department stores and other specialized shops, hospitals, theaters, and the like. The true suburb, moreover, is more than a collection of dense city streets that have reached the edge of the built-up area. The suburb must be large enough and homogeneous enough to form a distinctive low density environment defined by the primacy of the single family house set in the greenery of an open, parklike setting.

I should emphasize that the suburb, in my definition, is not necessarily a separate political unit. In selecting a site for a nineteenth-century suburb, developers carefully considered such questions as topography or access to the central city, but
virtually ignored whether an attractive location was within or outside the political jurisdiction of the central city. Only in the twentieth century did a separate political identity become important in maintaining a separate social or design identity. Even today almost all large cities have suburbs as I define them within their borders.

Suburbia can thus be defined first by what it includes – middle-class residences – and second (perhaps more importantly) by what it excludes: all industry, most commerce except for enterprises that specifically serve a residential area, and all lower-class residents (except for servants). These social and economic characteristics are all expressed in design through a suburban tradition of both residential and landscape architecture. Derived from the English concept of the picturesque, this tradition distinguishes the suburb both from the city and from the countryside and creates that aesthetic “marriage of town and country” which is the mark of the true suburb.

One need only contrast this definition with the realities of the eighteenth-century city to see how radically suburbia contradicted the basic assumptions that organized the premodern city. Such cities were built up on the principle that the core was the only appropriate and honorific setting for the elite, and that the urban peripheries outside the walls were disreputable zones, shantytowns to which the poorest inhabitants and the most noisy manufacturers were relegated.

In London – a typical premodern city in this respect and one with a special relevance to this study – income and social standing declined markedly as one moved from the center to the outskirts. These social distinctions were enshrined in the language itself. From its earliest usage in the fourteenth century until the mid-eighteenth century, a “suburbe” – that is, a settlement on the urban fringe – meant (in the definition of the *Oxford English Dictionary*) a “place of inferior, debased, and especially licentious habits of life.” The canon’s yeoman in Chaucer’s *Canterbury Tales* says of himself and his master, a crooked alchemist, that they live “in the suburbs of town. We lurk in corners and blind alleys where robbers and thieves instinctively huddle secretly and fearfully together…”

In Shakespeare’s London so many houses of prostitution had moved to these disreputable outskirts that a whore was called “a suburb sinner,” and to call a man a “suburbanite” was a serious insult. One nineteenth-century writer has described the inhabitants of the suburb of Cripplegate in the seventeenth century as

a population of tanners and skinners, catgut makers, tallow melters, dealers in old clothes, receivers of stolen goods, charcoal sellers, makers of sham jewelry, coiners, clippers of coin and silver refiners, who kept their melting-pots ready day and night for any silver plate that might come to hand, tasters in noisome trades and dishonest dealers…Forgers of seals, of bills, of writs, professional pick-purses, sharpeners and other thieves, conjurors, wizards and fortune tellers, beggars and harlots found a refuge here.

If the modern suburb can be defined as a peripheral zone in which people of means choose to live, then such a district was literally unthinkable in the premodern city, a contradiction in the basic terms that defined urban structure.

Indeed, even the concept of a residential district from which commerce and industry had been excluded was inconceivable for the premodern city. The basic
principle of a city like London before 1750 was that work and residence were naturally combined within each house. Almost all middle-class enterprises were extensions of the family, so that it was not only the Spitalfields weaver who lived with his loom or the grocer who lived above his shop. The banker conducted business in his parlor, the merchant stored his goods in his cellar, and both housed and fed their apprentices along with their families.

This intimate connection of work and residence explained the universal attraction of the wealthy bourgeoisie to the urban core. When workplace and residence are combined, the best location for transacting one’s business determined the location of one’s house. In a mercantile city this location was almost invariably the most crowded district of the urban core.

I should emphasize here that even the relatively wealthy core areas were never upper-class neighborhoods in the modern sense. Just as the idea of a district devoted to a single function – a residential district or a business district – was foreign to the premodern city, so too was a single-class district. John Strype describes the privileged parish of St Giles in the Fields as possessing “a mixture of rich inhabitants, to wit, of the Nobility, Gentry, and Commonality, but, withal, filled with abundance of poor.”5

The wealthy might, at best, occupy large townhouses that fronted on the principal streets. But the poor inevitably crowded into the narrow alleyways and courtyards that existed literally in the backyards of the rich. This “medley of neighborhood,” as Strype put it, was accepted without question. The poor were often servants in nearby houses, or workers in the multitude of small workshops found throughout the city. As one eighteenth-century writer observed,

Here lives a personage of high distinction; next door a butcher with his stinking shambles! A Tallow-chandler shall be seen from my Lord’s nice Venetian window; and two or three brawny naked Curriers in their Pits shall face a fine Lady in her back Closet, and disturb her spiritual Thoughts.6

Here indeed we find the “mixed uses” frequently romanticized by twentieth-century “postsurburban” planners. These mixed uses often had a functional basis, as when workshops clustered around the homes of merchants who dealt in their products. Sometimes they seem bizarre, as when a notorious “crime district” called Alsatia could be found adjoining the Temple, the center of English law.7 In any case, the basic principles of the modern suburb had no precedents in the premodern city.

The suburb as we know it, therefore, did not evolve smoothly or inevitably from the premodern city; still less did it evolve from those disreputable outlying districts which originally bore the name of “suburbs.” The emergence of suburbia required a total transformation of urban values: not only a reversal in the meanings of core and periphery, but a separation of work and family life and the creation of new forms of urban space that would be both class-segregated and wholly residential.

Who then invented suburbia and why? To ask the question is to formulate a major thesis, which is that suburbia was indeed a cultural creation, a conscious choice based on the economic structure and cultural values of the Anglo-American bourgeoisie. Suburbanization was not the automatic fate of the middle class in the “mature industrial city” or an inevitable response to the Industrial Revolution or the so-called transportation revolution.
Yet, if suburbia was an original creation, it was not the product of an architect of genius who conceived the modern suburb in a single vision, which then gradually inspired the design profession and eventually the middle class. Indeed, in this history of suburban design, professional architects and city planners play a remarkably limited role.

Suburbia, I believe, was the collective creation of the bourgeois elite in late eighteenth-century London. It evolved gradually and anonymously by trial-and-error methods. Wealthy London bankers and merchants experimented with a variety of the traditional housing forms available to them to create an original synthesis that reflected their values. Suburbia was improvised, not designed. Its method of evolution paralleled that of the contemporaneous Industrial Revolution, then taking place in the north of England, which also proceeded by trial-and-error adaptation. In both cases one senses the power of a class with the resources and the self-confidence to reorder the material world to suit its needs.

The motives that inspired the creation of suburbia were complex. Here I would emphasize only one, which seems to me the most crucial. The London bourgeoisie who invented suburbia were also experiencing a new form of family, which Lawrence Stone has called “the closed domesticated nuclear family.” Inner-directed, united by strong and exclusive personal ties, characterized in Stone’s phrase by “an emphasis on the boundary surrounding the nuclear unit,” such families sought to separate themselves from the intrusions of the workplace and the city. This new family type created the emotional force that split middle-class work and residence.8

The bourgeois residence was now freed from traditional patterns to be redesigned as a wholly domestic environment – the home of a family that acted primarily as an emotional rather than an economic unit. This home, moreover, need not be restricted to the crowded districts of the urban core, as the logic of business location had formerly dictated. It was free to seek a more appropriate setting beyond the city in the picturesque villages that surrounded London. There, within easy commuting distance to the city by private carriage, these merchants and bankers could construct their “bourgeois utopia” of leisure, neighborliness, prosperity, and family life.

To this strong cultural impetus to suburbanization was soon added an equally strong economic motive. The suburban idea raised the possibility that land far beyond the previous range of metropolitan expansion could be transformed immediately from relatively cheap agricultural land to highly profitable building plots. This possibility provided the great engine that drove suburban expansion forward. Builders in both England and the United State adapted more easily to the needs of suburban development than they did to the more difficult challenge of creating middle-class districts within the city. Suburbia proved to be a good investment as well as a good home.

Middle-class suburbanization thus entered into the structural logic of the expanding Anglo-American city. It formed an integral part of what Frederick Law Olmsted perceived to be “the most prominent characteristic of the present period of civilization…the strong tendency of people to flock together in great towns.”9 Suburbia might appear to be a flight from the city but, seen in a larger, regional context, suburbanization was clearly the outer edge in a wider process of metropolitan growth and consolidation that was draining the rural areas and small towns of
their population and concentrating people and production within what H. G. Wells called “the whirlpool cities.”

In 1800 only 17 percent of the English people lived in settlements larger than 20,000 people. Cities were then places for highly specialized forms of consumption, manufacture, and trade. The real work of the world took place in the villages and in the countryside. By 1890, however, 72 percent of the English population lived in districts classified as “urbanized.” In the United States in 1800 less than 4 percent of the population lived in cities of 10,000 or more; by 1890 that figure had reached 28 percent. Behind these statistics lies a fundamental shift in the role of the modern city. Where premodern cities had been parasitic on the larger societies, the new industrial metropolis emerged as the most efficient and productive site for the most characteristic modern industries.

As such “whirlpool cities” as London, Manchester, and New York came to dominate the world economy, their attraction grew ever more powerful. In these centers of exchange and information, crowding seemed to work; in other words, intense congestion led not to chaos and decline but to further expansion. In the nineteenth century the expression “urban crisis” referred to the explosive growth of the great cities, and to horrified critics it seemed that almost the whole population of modern nations would soon be sucked into the already crowded urban centers.

Inevitably, these whirlpool cities had to expand physically, to break the barriers of size that had always constrained urban growth. The only question was if they would grow in the traditional manner, with the wealthy massed at the core and the poor pushed ever farther into the periphery; or if the middle class would use their wealth and resources to seize the unspoiled land at the urban fringe for their suburban “bourgeois utopia,” forcing the working class into an intermediate “factory zone” sandwiched between the central business district and the suburbs.

Broadly speaking, continental and Latin American cities opted for the traditional structure, while British and North American cities followed the path of middle-class suburbanization. This distinction, still fundamental in so many of the world’s great cities, had nothing to do with the supposed backwardness of continental cities as compared to their Anglo-American counterparts. Paris in the nineteenth century became far more intensively industrialized than London, and the French capital developed a network of omnibuses, streetcars, and railroads that matched the transportation facilities in any English or American city. Yet the Parisian middle class remained loyal to the central city; the transportation system in Paris was used to move Parisian industry and its workers to the suburbs, and every further advance in transportation and industry has meant moving factories and the working class even farther from the city while the Parisian middle class has solidified its hold on the urban core.

However “objective” the “industrial city” might appear in diagrams from the Chicago School of sociology, its form rests ultimately on the values and choices of the powerful groups within the city. The decision of the bourgeoisie in Manchester and the other early industrial cities in the 1840s to suburbanize created the basic structure of the Anglo-American industrial city, while the decision of the comparable group in Paris of the 1850s and 1860s (aided by considerable governmental aid and intervention) to live in apartment houses in the center created the modern continental-style city.
In both cases the key actor was that elite of the middle class, the bourgeoisie. By “bourgeoisie” I mean that part of the middle class which through its capital or its professional standing has attained an income level equal to the landed gentry, but whose daily work in urban offices ties it to middle-class style of life. Their personal resources permit them to create new patterns of living, while the values they share with the rest of the middle class make them the model for eventual emulation by the less prosperous. The history of suburbia must therefore be a cultural and social history of the Anglo-American bourgeoisie. They are the pioneers whose collective style and choices define the nature of suburbia for their era.

For these English and American bourgeois pioneers, the “frontier” was inevitably the urban periphery, with its relatively cheap, undeveloped land. In continental cities massive governmental intervention – the nineteenth-century versions of urban renewal – opened the possibility of reshaping the urban core for bourgeois uses. In England and the United States, laissez-faire urban economics turned the core into a tangle of competing uses. Only the periphery was sufficiently undefined to permit innovation. Indeed, the fate of the periphery was ultimately decisive in defining the whole structure of the Anglo-American city. In this Darwinian struggle for urban space, the bourgeoisie sought not only land for their commercial and industrial enterprises but also land for their dreams: their visions of the ideal middle-class home. These dreams are now deep in the structure of the twentieth-century city.

The history of suburbia is thus a history of a vision the bourgeois utopia – which has left its mark on thousands of individual suburbs, each with its own distinctive history. But I believe that all these communities can be linked to a single suburban tradition of architectural and social history. In attempting to outline the principal stages in the evolution of this tradition, I have been forced to depart from the usual method of suburban history, which is to examine one community over time. No single suburb adequately represents all the stages of suburban evolution, so I have selected a series of communities that seem best to embody the suburban idea at each crucial point of innovation.

These suburbs are not typical of their time but rather exemplary. Built rapidly in periods of unusual growth and prosperity, they incorporate in their design a creative response to contemporary changes in the structure and economy of modern cities. Unconstrained by previous building, responding to new social and cultural forces, these communities are truly “of their time.” Through a series of often uncoordinated decisions by developers, builders, and individuals, a new style arises, which is then copied in hundreds of other suburbs. These exemplary suburbs create the image that, at any particular time, defines the suburban tradition. This image then becomes an active force in urban history, shaping subsequent decisions by speculators and home buyers that transform the urban landscape.

The first models for this process – and consequently the inevitable starting point for this book – were those earliest of modern suburbs which took shape on the outskirts of London in the second half of the eighteenth century. They not only defined the essential suburban image for all subsequent development but, in their strict segregation of class and function, they also implied a new structure for the modern city.

These implications were first worked out in practice not in London itself but in the early nineteenth-century industrial cities of northern England. The suburbs of Manchester, which form the second group of exemplary suburbs, were the necessary
catalyst in reshaping the whole structure of the modern industrial city. For the first
time one sees a middle class that is wholly suburbanized; and, as necessary correl-
ates, a central business district devoid of residents and a crowded, smoky factory
zone between the central business district and suburbia. Frenzied land speculation,
bitter class conflict, and the alluring image of the bourgeois utopia combined to
restructure the basic components of the city.

By the 1840s Manchester had established a model for middle-class suburbaniza-
tion that was to endure fundamentally unchanged for a century. In the 1850s and
1860s this suburban model established itself outside the rapidly growing cities of the
United States but was decisively rejected in France. There, as we have seen, the
bourgeoisie maintained their hold on the urban core. This dichotomy creates an
important problem for any history of suburbia: why did this bourgeois utopia take
hold only among the “Anglo-Saxon” bourgeoisie, when the equally bourgeois
French followed a very different vision?

The answer hinges both on long-term differences between French and Anglo-
American images of the city and on the specifics of Eugène-Georges Haussmann’s
massive rebuilding of Paris. In any case, the great apartment houses along the new
boulevards of Paris – as well as their counterparts in Vienna’s Ringstrasse – created a
powerful counterimage that shaped the continental city into a structure diami-
trically opposed to that of the English city. At the same time, and for equally strong
cultural and economic reasons, the American middle class adopted the English
model of bourgeois suburbanization so decisively that ever since Americans have
been convinced that it was they who invented suburbia.

Indeed, after 1870 the site of the “exemplary” suburb shifted decisively to the
United States. It happened not because of any loss of enthusiasm for the suburban
ideal in England. The slowing of the British economy, first apparent in the late
nineteenth century, combined with the explosive growth of the American industrial
city, meant that English suburbs were more constrained by the past, while the United
States was forced to innovate.

The suburbs that arose outside the American industrial cities at the end of the
nineteenth century were the classic embodiments of the whole history of suburbia.
They not only summed up the design tradition now more than a century old, but
they provided the model that all subsequent suburbs have attempted to imitate.
Structurally, these suburbs were at once separate from the industrial city and yet,
through the streetcar and the steam railroad, easily accessible to it. Socially, they
housed a powerful and self-conscious bourgeoisie that combined the old business
and professional elite with the “new middle class” anxious to establish its separate-
ness from the immigrant cities. In design, the substantial houses set in open, tree-
shaded lots summed up that blend of property, union with nature, and family life
which defines the suburban tradition. I have chosen the suburbs of Philadelphia to
exemplify this era – though the suburbs of Boston, New York, Baltimore, St Louis,
and especially Chicago would have served just as well.

If there is a single theme that differentiates the history of twentieth-century
suburbia from its nineteenth-century antecedents, it is the attempt to secure for the
whole middle class (and even for the working class as well) the benefits of suburbia,
which in the classic nineteenth-century suburb has been restricted to the bourgeois
elite alone. Inevitably, this attempt was to change the basic nature both of suburbia
and of the larger city. For how can a form based on the principle of exclusion include everyone?

This paradox is exemplified in the history of Los Angeles, the suburban metropolis of the twentieth century. From its first building boom in the late nineteenth century, Los Angeles has been shaped by the promise of a suburban home for all. The automobile and the highway when they came were no more than new tools to achieve a suburban vision that had its origins in the streetcar era. But as population spread along the streetcar lines and the highways, the “suburbs” of Los Angeles began to lose contact with the central city, which so diminished in importance that even the new highways bypassed it. In the 1920s, a new urban form evolved in which the industries, specialized shopping, and offices once concentrated in the urban core spread over the whole region. By the 1930s Los Angeles had become a sprawling metropolitan region, the basic unit of which was the decentralized suburb.

This creation of a suburban metropolis signaled a fundamental shift in the relationship of the urban core and its periphery, with implications extending far beyond Los Angeles. As we have seen, the suburb emerged during the era of urban concentration, when the limitations of communications and transportation combined to draw people and production into the crowded core. By the 1920s an interrelated technology of decentralization – of which the automobile was only one element – had begun to operate, which inexorably loosened the ties that once bound the urban functions of society to tightly defined cores. As the most important urban institutions spread out over the landscape, the suburb became part of a complex “outer city,” which now included jobs as well as residences.

Increasingly independent of the urban core, the suburb since 1945 has lost its traditional meaning and function as a satellite of the central city. Where peripheral communities had once excluded industry and large-scale commerce, the suburb now becomes the heartland of the most rapidly expanding elements of the late twentieth-century economy. The basic concept of the suburb as a privileged zone between city and country no longer fits the realities of a posturban era in which high-tech research centers sit in the midst of farmland and grass grows on abandoned factory sites in the core. As both core and periphery are swallowed up in seemingly endless multi-centered regions, where can one find suburbia?

This problem forms the heart of my concluding chapter in the book from which this essay is drawn, “Beyond Suburbia: The rise of the Technoburb.” Kenneth Jackson in his definitive history of American suburbanization, Crabgrass Frontier, interprets post-World War II peripheral development as “the suburbanization of the United States,” the culmination of the nineteenth-century and early twentieth-century suburban tradition.16 I see this development as something very different, the end of suburbia in its traditional sense and the creation of a new kind of decentralized city.

Without anyone planning or foreseeing it, the simultaneous movement of housing, industry, and commercial development to the outskirts has created perimeter cities that are functionally independent of the urban core. In complete contrast to the residential or industrial suburbs of the past, these new cities contain along their superhighways all the specialized functions of a great metropolis – industry, shopping malls, hospitals, universities, cultural centers, and parks. With its highways and advanced communications technology, the new perimeter city can generate urban diversity without urban concentration.
To distinguish the new perimeter city from the traditional suburban bedroom community, I propose to identify it by the neologism “technoburb.” For the real basis of the new city is the invisible web of advanced technology and telecommunications that has been substituted for the face-to-face contact and physical movement of older cities. Inevitably, the technoburb has become the favored location for those technologically advanced industries which have made the new city possible. If, as Fernand Braudel has said, the city is a transformer, intensifying the pace of change, then the American transformer has moved from the urban core to the perimeter.17

If the technoburb has lost its dependence on the older urban cores, it now exists in a mult centered region defined by superhighways, the growth corridors of which could extend more than a hundred miles. These regions, which (if the reader will pardon another neologism) I call techno-cities, mean the end of the whirlpool effect that had drawn people to great cities and their suburbs. Instead, urban functions disperse across a decentralized landscape that is neither urban nor rural nor suburban in the traditional sense. With the rise of the technoburb, the history of suburbia comes to an end.

NOTES

2 Geoffrey Chaucer. *Canterbury Tales*, Canon’s Yeoman’s Tale, lines 557–60:
   In the suburbs of town . . .
   Lurkynge in hernes and in lanes blynde,
   Whereas thise robbours and thise theves by kynde
   Holden hirpryvee fereful residence . . .
6 Anonymous article in *Old England* (London), 2 July 1748.
7 *Encyclopaedia Britannica*, 11th edn, s.v. “London.”
12 Ibid.
Ibid., 39.


15 Andrew Lees. *Cities Perceived: Urban Society in European and American Thought, 1820–1940* (New York: Columbia University Press, 1985), 136–88. As Lees emphasizes, these negative views were balanced by more positive evaluations of the impact of urbanization.


Bourgeois Utopias emphasized how the overlapping interests of the affluent (who were eager to flee filthy downtowns and the working classes), idealistic planners and big builders made suburban expansion possible. But Fishman concluded, presciently, that sprawl and advanced communications would knock "true suburbs" out of existence, creating techno-regions where every home was a working center. Hayden does not offer a grand reinterpretation of suburban history. But Building Suburbia makes several major advances. Most fundamentally, it introduces a novel conceptual scheme for distinguishing seven modes of suburban development, each defined by an assemblage of distinctive architectural styles, marketing strategies, building techniques and attitudes about nature.