BARRIER ISLAND SETTLEMENT AND LANDUSE EVOLUTION: A GULF COAST MODEL

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Introduction

For coastal planners to make effective zoning decisions in their respective seaside communities, it is important not only to understand the physical processes at play but also the cultural-historical antecedents of the present landuse patterns. Often the various components of an established American beach resort's urban morphology originated spontaneously (i.e. unguided by zoning), and distinctive patterns of landuse evolved. At present, many coastal resort communities are approaching their areal limits to growth, and pressures to intensify landuse (i.e. 'redevelop') may threaten the 'vernacular' seaside urban morphology.

The aim of this paper is to present a background of the geography of coastal resorts and to offer a schematic explanatory model of resort evolution based on research conducted along the Gulf of Mexico littoral. Three seaside resorts--Fort Myers Beach and Pensacola Beach in Florida, and Grand Isle, Louisiana--are briefly described in terms of resort evolution, settlement morphology, and conformity to the proposed model.

Previous Research

Much of the research in coastal urbanization has been conducted in England, site of Scarborough, the world's oldest seaside resort (where sea water began to replace mineral water as a health cure in the early 1700s). The geographer E.W. Gilbert's pioneering research in coastal resort genesis, evolution, and morphology during the 1930s (Gilbert, 1939) paved the way for extensive future recreation research in the United Kingdom. His tome in Brighton (Gilbert, 1954) still stands among the most thorough studies of resort evolution.

Barrett (1958), in his study of 80+ seaside resorts in Great Britain, developed a model of "theoretical accommodation zones", in which a zone of hotels and other "frontal amenities" faced the beach directly seaward of a downtown core. Farther away from the beach, the type of lodging facilities became simpler (boarding houses and bed-and-breakfast places), and with distance from the core area, the intensity of tourism-related activities decreased.

Stansfield (1971), in a comparison of British and Northeast U.S. resorts, found a similar pattern of "frontal amenities" which he labelled the recreational business district (RBD) to distinguish from the central business district (CBD). The RBD, a highly-specialized business district composed of hotels, tourist-oriented shops, and amusement facilities, catered especially to short-term vacationers. This concept was readily adopted by many tourism and recreation researchers (e.g. Lavery, 1971).

Although resort evolution is a popular theme in the literature of tourism, the research focus has been primarily sociological or economic, and often theoretical in nature. Resort growth is generally described in terms of an S-curve or bell-curve, analogous to the 'product life cycle' concept used in marketing. One of the better theoretical descriptions of resort growth is provided by Butler (1980), who identifies several discrete stages of development. The upper limits of growth are determined by market saturation and decay in resort infrastructure, which send tourists and recreationists off to less-spoiled beaches.

Corollary morphologic aspects of resort evolution have not been well documented. Generalized models of coastal landscape change have been developed (e.g. Miossec, 1976; Preobrazhensky & Krivosheyev, 1982), but systematic correlation of development stage with landscape expression is a new and usually site-specific research focus. Variations of the Butler (1980) model have been applied to examinations of coastal landscape change at Malta (Young, 1983), Grand Isle (Meyer-Arendt, 1985), and Antigua (Weaver, 1986).

A Resort Morphology Model

On the basis of the development patterns noted at older Gulf Coast resorts, a schematic model of resort evolution is offered (Figure 1). Initial touristic occupancy (Stage A) is facilitated by, but not necessarily dependent on, the provision of access. Access, however, leads to increased day use, and the point of closest beach access evolves into the recreational business district. Limited summer home construction occurs, though lack of services restricts the level of residential development.

With the "take-off" of development in Stage B, the RBD expands along the beach and along the access highway. Residential expansion also takes place along the beachfront and in the vicinity of the business district. The original RBD core is still the prime focus of tourists and recreationists, and often a fishing pier is added. An incipient community has formed by this time.

Stage C entails an expansion of the development patterns already established. Residential expansion continues along the beachfront, and the bayshore becomes a secondary focus for development. If extensive wetlands occupy the backbarrier zone, rampant conversion (by means of dredging) to residential canal subdivisions takes place. If the number of permanent
In Stage D, land use becomes consolidated as the remaining vacant land fills in. Land values have by now effectively precluded all but the wealthy from building single-family second homes, and multi-unit dwellings (particularly condominiums) are constructed. The landuse zoning is quite distinguishable at this stage of development. Intense recreational activity is concentrated along the access corridor and beachfront flanking the RBD core, where most of the hubbub takes place. A broad residential area (mainly single-family) flanks the commercial zone, and the condominium zone occupies the extremes and formerly less desirable lands. This pattern of complete development may be interspersed with vacant lands, reflecting the establishment of parks or preserves—or the denial of wetlands permits.

By Stage E, if market demand for beach recreation at this crowded resort remains strong, pressures for redevelopment lead to increasing encroachment of condominiums into both the RBD and residential zones, particularly along the beachfront. This trend is encouraged by deterioration of older facilities and escalation of real estate values and property taxes, which often force sellouts by fixed-income property owners. This process of landuse intensification can be greatly accelerated as a consequence of hurricane onslaught, which can literally "wipe the slate clean" and—in the absence of landuse zoning—pave the way for dense highrise construction along the beachfront. (Gulf Shores, Alabama after Hurricane Frederic [1979] is perhaps the best example of this.)

Fort Myers Beach

Estero Island, essentially uninhabited until homesteaders arrived in the late 19th century, has witnessed tremendous recreational development since then, in large part due to its tropical south Florida setting. All five stages of development are evident at this island.

The island initially developed as a summer resort for residents of nearby Fort Myers. Prior to beach access provision in 1921 (in the form of a short wooden bridge to the mainland), several of the homestead properties had been subdivided, and a Beach Hotel was built in 1912 (Schell, 1980). By the time of the Florida Boom in the 1920s, the point of closest beach access had developed into a "bonky-whoak" (or RBD), complete with gambling casino, beach pavilion, & bathhouse. A recreational settlement core, consisting largely of private beach homes extending linearly along the shorefront to past the Beach Hotel, had developed. Owners of low bayside property dredged canals to boost real estate values, but demand for mosquito-ridden lots remained low. In spite of two devastating hurricanes during the 1920s, Fort Myers Beach rebounded, and the pattern of beachfront expansion continued, albeit slowly, until after World War II (Meyer-Arendt, 1986).

The postwar boom, characterized by greater affluence and mobility, was felt intensively throughout south Florida. The status of Fort Myers Beach, which started as a local summer resort to a national winter resort as the Midwestern and Northeastern snowbirds began their annual seasonal migrations. As beachfront properties became developed, the mangroves began to be converted to residential canal subdivisions. Development was most intense nearest the point of mainland access, and a CBD developed at the focal point of recreational activity. Motels and cottage resorts were also primarily concentrated in this area. By 1970, only the unstable southern beach spit and several tracts of backbarrier mangroves remained undeveloped.

The year 1970 approximately marks the onset of the condominium era among most Gulf Coast seaside resorts. This form of intense landuse began to modify the pre-existing resort morphology. At Fort Myers Beach, the remaining parcels of vacant land, primarily at the south end, filled in, first along the beachfront, secondly along the bayshore, and thirdly on canal properties dredged out of the mangroves.

Increasing environmental legislation led to a total ban on mangrove conversion by 1980. Continued market demand for resort property, coupled with lack of land for areal expansion, prompted developers to acquire blocks of older residential beachfront properties for conversion into condominium apartments. No zoning restrictions prevented this trend, but Lee County imposed lowered density standards in 1980 (from 35 to 14 units/acre). County planners feel that the carrying capacity of the island has been reached (Ahlert et al., 1982), and condominium construction has significantly fallen off in recent years. Fort Myers Beach can presently be described as a saturated seaside resort. The population swells from 6000 to 25,000 or 30,000 during the winter season, and the 7-mile drive along the length of the island can take over one hour. In spite of greater height restrictions, the mechanism of landuse intensification through acquisition and redevelopment of older properties remains.
Pensacola Beach

Like Fort Myers Beach, Pensacola Beach developed as a summer playground for residents of nearby Pensacola. As early as the 1880s, boats carried recreationalists to the beaches of Santa Rosa Island for the day, and a U.S. Coast Guard life-saving station became the focal point for recreational activities. Following a 1906 hurricane which destroyed the Coast Guard station, a hotel was built on the beach, but this lasted only until the next hurricane, in 1916. Highway access was provided in 1931, but Escambia County, which had bought Santa Rosa Island from the U.S. Government, leased only a small portion of beachfront land for construction of a casino/amusement center—in essence an RBD without lands not be sold—but only leased—and that all development be in the playground for residents. The county soon gave up its claim to the island, and for 20 years, the landuse on the Beach consisted only of the Casino.

Pensacola Beach also felt a postwar boom. The U.S. Government again returned Santa Rosa Island to Escambia County with the stipulation that lands not be sold—but only leased—and that all development be in the “public interest” (Lenox, 1973). In 1947, the Santa Rosa Island Authority was created to oversee the leasing of lands for commercial and residential development. Initially, a commercial district was zoned for the area closest to the Casino, and residential subdivisions were to be created to the east. A community began to take shape in 1951, and by 1957 the commercial area was totally leased, mainly to motels, rental beach cottages, and other recreation-oriented businesses. Much of the remaining land was leased by speculators (in large blocks) in anticipation of future development. The year 1960 witnessed the beginnings of a westward expansion of the landuse zonation east of the RBD. By the late 1960s, a popular RBD—centered on the Casino and fishing pier, the family-oriented Quietwater Beach, and the adjacent commercial district, was flanked by residential subdivisions, and land for further development was still available at both ends of the community.

Pensacola Beach also witnessed a condominium boom beginning about 1970 (SRIA Annual Reports, var. years). As at Fort Myers Beach, the last remaining parcels of empty land became the loci of this increasingly highrise construction. The zone between the RBD and the entrance to the Gulf Islands National Seashore (formerly Ft. Pickens State Park) was especially favorable to developers. Public recreational facilities and dune preserves were quickly established to prevent total encroachment. Today, the few remaining parcels at the west end are already slated for development. The east end also saw condominium and residential growth during the 1970s, but in the last few years, efforts by residents and environmentalists succeeded in limiting further development to 61 acres. Construction on the first 10 acres has recently begun.

As Pensacola Beach is nearing its areal limits to growth, pressures for “redevelopment” are intensifying. Several older motels have been converted to condominiums, and in the last few years, several others have been razed for highrise construction. Although continued highrise development is of financial benefit due to lease revenues, the present trend—plus a proposal to expand the official “core area” (or RBD) into the older residential sectors—has stimulated a public outcry. Wallace, Robert, & Todd, a Miami-based environmental planning firm (whose credentials include the landmark Sanibel Report), has been commissioned to give proper direction to development, and until the plan is presented and approved (in Fall 1986), a moratorium on RBD redevelopment is in effect. Pensacola Beach is now in the consolidation stage of development, at the point of transition to the saturation stage. It is anticipated that the comprehensive landuse plan will confine further development to the respective discrete landuse zones that have already evolved.

Grand Isle

Grand Isle, although settled for over two centuries, has not been subjected to the recreational development pressures as have the other two sites, in part due to its location, but also because of its low-quality beach and periodic destructive hurricane onslaughts. Being a resort attractive to fishermen, and less so to beach recreationalists, lack of strong market demand has kept the island in Stage C of the model.

Grand Isle was the first of the 3 sites to undergo recreational transformation, in large part due to its initial relative proximity to New Orleans. The first tourism boom began after the Civil War with the conversion of a defunct sugar plantation to a resort hotel (Stielow, 1982). The fad of sea-bathing enticed New Orleanians to endure 8-hour boat rides to get to the island, and by the early 1890s, 3 major hotels and several boarding houses catered to the tourists. In terms of resort morphology, this recreational development represented the first major settlement expansion away from the village proper, which was nestled among the higher central beach ridges, which were extensively covered with live oaks (Quercus virginiana). This initial settlement with exposed beach settlement ended with the infamous Cheniere Caminada Hurricane of 1893 which destroyed most tourist facilities but left the village intact.

The memory of the storm prevented new recreational development for decades, and not until the 1920s did Grand Isle again enter Stage A of the resort model. Highway access in 1932 laid the foundations for the modern settlement morphology. The central village was still the focus of commercial activity, but a pattern of sprinky beach/resort development concentrated between the west end (the point of access) and the village. Land developers bought up large parcels of land for subdivision in anticipation of a boom that was delayed until after World War II.

Half of the prewar subdivided lots were sold by 1950, and the beachfront was the locus of greatest development. The beach highway evolved into a strip RBD consisting of motels, rental cottages, and tourist businesses, and near the center of the island the RBD blended with the village CBD. The less desirable backbarrier marshes were developed last, although several oil and sulfur companies made the east side the base for their offshore operations. The physical environment was less hospitable than at the Florida resorts, and by the mid-1950s, erosion was undermining many beachfront homes and detracting from the attractiveness of the beach. Spotty bulkhead and groin construction only accelerated the erosion, and by the early 1960s, the postwar boom was waning. Beach recreationalists turned their attentions to the increasingly accessible beaches of Mississippi, Alabama, and Florida (Hubbert, 1983).

In 1965, Hurricane Betsy made landfall on Grand Isle, and 85% of all structures were damaged. The storm provided a facelift, however, and the resort morphology was re-established intact—the RBD strip became lined with more modern motels and businesses. Beach nourishment restored the shorefront, and summer homes reoccupied this zone. The post-storm mini-boom was shortlived, however, and by the early 1970s beach erosion
had again contributed to serious environmental degradation, keeping all but diehard fishermen and weekenders from the island (Meyer-Arendt, 1985).

The condominium boom has largely bypassed Grand Isle. In 1980, a condominium/marina complex started construction near the east end, and in 1985 a west end marina hotel converted to condos. The post-Betsy commercial strip of motels and souvenir shops still comprises the RBD and little pressure for redevelopment exists. In 1985, a turnaround for tourism was foreseen when a $15 million U.S. Corps of Engineers dune-and-beach-restoration project was completed (USACE, 1978), but 3 major hurricanes later that same year dampened that enthusiasm. (Although damage to island structures was negligible, the new beach was severely eroded and 2 miles of the 7-mile sand levee were removed.) Nonetheless, a 150 acre resort complex--complete with a major hotel, numerous condominiums and townhouses, and 600 single-family lots--is slated for construction, if the necessary wetlands permits can be obtained. Grand Isle is best described as being in Stage C of the model, perhaps on the verge of entering Stage D. Whether the consolidation stage will be reached anytime soon is dependent upon the perceived recreational resources of the island and associated market demand.

Summary

Although Fort Myers Beach, Pensacola Beach, and Grand Isle can all be understood in terms of the resort model, the individual settlement histories do not necessarily have to progress through all of the stages. As a requisite to reaching the saturation stage, continued high market demand must exist. Deterioration of either natural or cultural amenities may cause a decline in a resort's popularity, and consequently the settlement morphology may be "frozen" at its most recent stage of development. Landuse controls, such as wetlands legislation, post-storm reconstruction restrictions (as enacted by Florida last year), density restrictions, and zoning can all modify the patterns of "spontaneous development" outlined in the model. A determination of what is optimal for a particular resort can only be made by examining a host of variables (e.g. traffic flows, parking, carrying capacity of beaches, etc.). In terms of resort morphology, some variant of the consolidation stage (Stage D), in which landuse categories are allocated specific zones, may be the ideal toward which planners should direct development...provided this stage has not yet been surpassed.

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