This paper was previously published in: Hirt, S. 2010. To Zone or Not to Zone? Comparing European and American Land-use Regulation. PNDonline II.

pnd | online
www.planung-neu-denken.de
eine Plattform des Lehrstuhls für Planungstheorie und Stadtentwicklung mit Texten und Diskussionen zur Entwicklung von Stadt und Region

To zone or not to zone?
Comparing European and American Land-use Regulation

Sonia Hirt, Ph.D.
Associate Professor in Urban Affairs and Planning
College of Architecture and Urban Studies, Virginia Tech

This paper compares German and American approaches to land-use regulation. Conclusions are derived from a review of regulatory documents and expert interviews conducted in the German city of Stuttgart. The analysis shows that in the United States, the zoning approach is most commonly based on the assumption of exclusivity (i.e., each land-use district is suitable for only a single type of human activity, such as residential, business or industrial); whereas in Germany the prevailing principle is that of predominance (i.e., each land-use district is suitable for multiple types of activity and most districts end up essentially mixed-use). Thus, although the names of the land-use categories used in both countries are similar, their definitions – the types of activities they permit – are starkly different. The paper concludes that zoning reform in the United States must start with a fundamental rethinking of the definitions behind our standard zoning categories and recommends further learning from European nations.

A broad consensus has emerged among planners that contemporary American urban and regional landscapes, particularly those developed since the 1950s, are unsustainable (e.g., Burchell et al. 2005, American Planning Association 1998, Talen and Knaap 2003, Duany and Talen 2002, Calthorpe 1993). These landscapes, often labeled as »sprawl,« are defined by low densities, segregated land uses and housing types, increasing traffic congestion and air pollution, and a failure to restore the vitality of historic urban cores (Downs 2005). Not surprisingly, much planning energy has focused on combating the problem. Yet, the sprawling patterns stubbornly persist. Smart Growth, as Downs (2005: 367) notes, seems to be »much more talked about than actually carried out in practice.«

In this paper, I focus on one of the most popular tenets of Smart Growth: mixed land uses. Many premier urban scholars and many programmatic planning documents point to mixed use as key to restoring the vibrancy of American cities (e.g., Grant 2006, Talen and Knaap 2003, Daniels 2001, Downs 2001, Congress for the New Urbanism 2001, American Planning Association 1998, Montgomery 1998, Kunstler 1996, Schwanke et al. 1987). Mixed use has become, as Grant (2002: 71) put it, the new planning »mantra.«

Yet, wherever empirical research on the implementation of the mixed-use principle has been carried out, it has shown that in practice mixed-use zoning remains an exception (Talen and Knaap 2003; Hirt 2007; Grant 2003, 2002).

I argue that when it comes to mixed use, the problem is not just that it is »much more talked about than actually carried out in practice.« Rather, the problem is that when we, American planners and citizens alike, talk about mixed use, we lack a good reference point which would enable us to define the term meaningfully. Yet a reference point is important because as Angotti and Handhardt (2001) argue, there is no single definition of mixed use. There are degrees of mixed use and our definition of the term depends entirely on our point of comparison. I believe that when we talk of having mixed use in our cities, we tend to talk of having *more* mixed use than we used to have under strict Euclidean zoning from the mid-20th century. Thus, if we adopt a new downtown mixed-use district, it seems to us we have made a significant change. I propose to switch the reference point: instead of comparing current, ostensibly pro-mixed-use American zoning codes with standard Euclidean codes from the 1950s, I suggest we begin comparing them to land-use practices in other nations. And since Germany is the country credited with inventing use-based zoning (Talen 2005, Platt 2004, Liebmann 1996), it is a logical starting point. Then, when compared to German (and, more generally, European) land-use practices, many recent U.S. ideas of what pro-mixed-use zoning is seem surprisingly modest.

I first review the benefits of mixed use, as outlined in the literature, and argue for the need to learn from other nations such as Germany. I summarize the basic principles of German land-use planning, especially with respect to promoting mixed use, and compare them to standard American practices. I find that while the names of German and American land-use zones seem similar, their definitions and the uses they permit are very different. I conclude with a brief note on land-use regulation in other European countries and offer some thoughts on the current status of land-use regulatory reform in America.

The overview of German land-use planning is based primarily on data I collected during a field visit to the German city of Stuttgart in 2006. The data include federal land-uses statues; local planning and land-use regulatory documents; and in-person and phone interviews with the planning staff of the City of Stuttgart, planning consultants working in the region, and planning academicians from the University of Stuttgart and the University of Bonn. Other data sources include secondary literature on German planning and land-use regulation, both historic and current, and online resources.

The benefits of mixed use

Diversity – diversity of people, built forms, human activities and land uses – is the lynchpin of urbanity (Talen 2006, 2005: 37). As J. Jacobs (1961) astutely argued nearly half a century ago, land-use diversity may be the most important precondition of urban vitality. It has the potential of attracting more pedestrian activity, increasing social interaction, and restoring a richer civic life (Montgomery 1998, Calthorpe 1993, Krier 1988, Jacobs and Appleyard 1987). It also brings important benefits along the three key aspects of planning sustainable cities: efficiency, equity and environmental protection (Campbell 1996). As Grant (2002: 72-3) explains:

Mix creates an urban environment active at all hours, making optimum use of infrastructure.

- Smaller, post-baby-boom households can have a greater range of options (rather than just detached homes).
- Mixing housing types could increase housing affordability and equity by reducing the premium that exclusive, segregated areas enjoy.
- By providing housing near commercial and civic activities, planners could reduce the dependence of the elderly and children on cars.
- Enabling people to live where they can shop, work, or play could reduce car ownership and vehicle trips, increase pedestrian and transit use, and thus alleviate the environmental consequences associated with automobile use.

U.S. planning, however, has historically sought to separate the uses (Boyer 1983). Separation was a reaction to the threats which noxious industry posed to public health in

the late 19th century (Grant 2002). It served several positive purposes: it reduced health and safety hazards and stabilized the market. But it reduced civic life (Kunstler 1997, Calthorpe 1993, Krier 1988, Jacobs 1961), increased inequities by inflating housing prices (Asabere and Huffman 1997, Dowell 1984) and erecting legal barriers between rich and poor, contributed to sprawl (Talen 2005), increased car dependence, worsened pollution (Ewing, Pendall et al. 2002; Fischel 1999; Pendall 1999), and even harmed pubic health by reducing the need for physical activity (Burchell and Mukherji 2003).

Growing evidence for the negative effects of separation and the benefits of mixed use led to a paradigm shift in planning (Hirt 2005). Mixed use has become the new planning gospel in the U. S. and Canada (Grant 2002). It is a key tenet of today's leading planning movements such as Smart Growth and New Urbanism (Downs 2005, 2001; Talen and Knaap 2003; Daniels 2001; Congress for the New Urbanism 2001). It is also heavily promoted in Europe (Office of the Deputy Prime Minister 2005, Hoppenbrouwer and Louw 2005, Wiegandt 2004, Rowley 1996, Sykora 1995, Healey and Williams 1993). In fact, when it comes to mixed use, programmatic documents issued on both sides of the North Atlantic share much of the same rhetoric (European Commission 1999b, American Planning Association 1998; also Siy 2004). But the rhetorical similarities are superficial because, as we shall further see in examining the German experience, the European and the American approaches to mixed use – past and present – have been quite different.

Learning from European countries

Kenneth Jackson (2005: 13, also von Saldern 2005) recently observed that what distinguishes the United States from other democratic nations in the post-World War II-era is that while other nations have been eager to learn lessons from the United States, Americans »did not bother to learn from European and Asian experience.« This lack of learning is regrettable for planners, Jackson argues, because European cities albeit not problem-free, tend to be more vibrant, compact, mixed-use, and ecologically friendly.

Jackson's dire assessment aside, there is now a burgeoning body of literature that has taken on the task of »learning from European cities« (Beatley 2000). Nivola's (1999) study of national policies across the North Atlantic and their impact on the urban landscape is perhaps the most influential example. Nivola points out that European cities have retained much of their vitality as a result of a number of government policies, such as the much larger proportion of national budgets dedicated to mass transit rather than highways, the higher European taxes on gas, the lack of home-ownership subsidies, the heavier reliance on consumption in lieu of income and property taxes, and the policies designed to protect European small business. Beatley (2000) adds the greater European emphasis on green technologies; and the stronger role of national and regional governments in protecting farmland and establishing growth boundaries and greenbelts (also Alterman 1997). Siy (2004) points to recent planning initiatives of the European Union which also promote compact cities and the conservation of green space.

Most of the above-cited literature acknowledges that European cities »exhibit a much higher level of mixing and integration of functions,« and it identifies mixed use as a key asset (Beatley 2000: 41). However, while some studies have noted the exceptional nature of U.S. single-family zoning (Cullingwoth 1993), none has examined in depth the question of exactly what is different about European regulation that enables the mix.

This gap in the literature has had unfortunate consequences for planning practice. American practitioners tend to be unaware of the key distinctions between American and European land-use regulation. They generally lack an international perspective that would allow them to assess American practice critically. As a result, the standard American way of zoning land in a highly prescriptive fashion and in mutually exclusive districts – fit for housing, commerce or industry, but rarely for a mix of them – has come to seem the normal and inevitable state of affairs, the only possible »default system« (Levine 2006). In turn, recent ideas for mixed-use zoning, which are often promoted as almost revolutionary proposals for regulatory revamping, have proceeded largely in a vacuum, without the benefit of learning from abroad. Thus the current system has taken on an aura of inevitability, while proposals for its reform have taken on an aura of brave innovation. These

connotations fade, however, when we consider that in other nations mixed-use zoning has always been the normal state of affairs.

American versus German approaches to mixed use

Comparative basis

A choice to compare German and American land-use regulation rests on several rationales. In both countries, zoning developed as an extension of 19th-century nuisance laws which aimed to amend the dangerous conditions of the polluted industrial city (Lefcoe 1979, Logan 1976). By the 1860s, European countries like Italy and France had already adopted rules to protect housing from factories. A select few American cities had made similar attempts (Fischler and Kolnick 2006). However, it was German reformers in the 1870-80s who invented the idea of zoning an entire city into separate residential and industrial districts (Platt 2004, Liebmann 1996). In 1891, Frankfurt became one of the first large cities to have a citywide zoning plan with use-based districts (Logan 1976). The German system was widely emulated in the U. S. (Logan 1976, Scott 1971).[1]

Today, the planning systems in Germany and the U.S. share fundamental features. Both countries are federations with national, state and local levels of government. In both, the federal level plays a limited role in planning by providing key framework documents, while most land-use planning occurs locally.[2] In both countries, municipalities employ two main land-use policy instruments. They first prepare a general plan, which broadly outlines the intended uses of land for the entire municipal area (i.e., the U.S. Master Plan and the German Preparatory Land-use Plan, *Flächennutzungsplan*). These plans serve as the basis for legally binding documents that set the rules of building. In the U. S., the rules are written and graphically presented in a zoning code comprising text and map, and a set of subdivision regulations (see Levy 2005). In Germany, they take the form of the Building Land-use Plans,[3] *Bebauungspläne*.[4] Like American zoning codes, the *Bebauungspläne* regulate use, area and bulk (e.g., lot depth and coverage, setbacks, building height, etc.). But unlike American codes, they also show existing buildings and infrastructure (see Wiegandt 2000; Federal Office of Regional Planning, Building and Urban Development 1993; Kimminich 1975). Another difference is that in the U. S. the zoning code is a single document with a map of the entire municipality. In Germany, a municipality draws many *Bebauungspläne*.[5] Typically, each is a map of a city block and includes written rules regarding land use, bulk and area.

Most importantly, the U.S. and the German systems share an overarching premise. In both, development is guaranteed *by right* as long as property owners abide the legal rules. This is far from trivial because not all planning regimes around the world operate in this way. The English system, for example, is discretionary in that there are no formal zoning rules, compliance with which guarantees the private party's right to build (Booth 2003).

Historical perspectives

Despite the similarities Germany and the U.S. have always treated mixed use differently. The goals of German zoning since its inception were control of noxious industry, relief from crowding and protection of the countryside (Liebmann 1996, Lefcoe 1979). The first two of those were of course aims of U.S. zoning as well (the third gained prominence later; Liebmann 1996). But U.S. planners had additional concerns and the zoning system they devised became a quintessentially American institution (Platt 2004).

What distinguished the two systems from the start was that German regulations focused on bulk and density, while U.S. regulations emphasized land-use control. German planners rarely prohibited all industry from residential areas; rather, they permitted it under performance standards. The Frankfurt code from 1891, for example, had six zones: two residential, two mixed-use and two industrial. Industrial enterprises that needed permits under the Imperial Code were banned from residential areas, but all others were allowed under certain criteria (Logan 1976). Moreover, in German codes commercial uses were permitted in all parts of town; they were banned amid residences only if they released noxious fumes. Single- and multi-family dwellings were almost always allowed to co-exist freely; the legal texts rarely distinguished between them (Liebmann 1996). In fact, J. Stübben, the doyen of early 20th-century German planning, spoke forcefully of the need

to connect places of business with dwellings and argued that »mixing of the wealthy and the poor should be promoted« (cited by Talen 2005: 156).

From early on, U.S. planners were keener on separation. In 1914, J. Nolen noted that the key U.S. contribution to planning might be »the separation of business and residential neighborhood« (cited by Talen 2005: 154). In 1929, E. Freund argued that: »People [in Europe] do not mind a little store around the corner a bit...We wouldn't have that in this country [the U.S.] because it is not compatible to our ideals« (cited by Liebmann 1996).

Through the 20th century, American planners can be credited with inventing at least four zoning ideas: hierarchical zoning, the exclusively residential zone, the exclusively single-family zone, and non-hierarchical zoning. By the consecutive application of these ideas, U.S. zoning evolved over time in a clear direction: toward more use-separation.

The most fully zoned American city in the early 1900s was Los Angeles. By 1915, it had zoned almost its entire area in various residential or industrial districts. Initially, even the most restrictive residential zones allowed some commerce and industry as »residence exceptions« (Scott 1971, Pollard 1931). But by 1916, when New York enacted the first truly comprehensive zoning code in the U.S., all industry and most commerce were banned from the residential districts. New York's code established three types of zones: residence, business and unrestricted (Willis 1993). The addition of the business zone is significant in that commerce was for the first time deemed sufficiently incompatible with residences as to require its own category. The code introduced the notion that the land uses form a *pyramid*. Residential uses made the top of the pyramid, while industrial uses made the bottom. Residential uses could locate freely in all zones that were below them in the pyramid (i.e., in business and industrial zones), but non-residential uses could not be built in the residential zones. Similarly, commercial uses could freely exist in the industrial zones, but industrial uses were barred from commercial zones (Hirt 2007, Platt 2004, Asabere and Huffman 1997). The code was quasi-separationist because mixed use could legally occur – albeit only in the lower-level zones – and because it did not distinguish between single- and multi-family housing types but allowed them to mix.

In the same year, 1916, Berkeley, California invented the idea of the *exclusively single-family zone*, which prohibited other types of housing (Fischler 1998b). Berkeley's code also differed from New York's in that it was *non-hierarchical*. It treated each zone as »pure« or suitable for only a single use. In other words, not only did it ban industry in the residential zones but it also banned residences in the industrial zones (Scott 1971).

Widespread adoption of zoning across the U.S. occurred after two pivotal events in 1926: the Supreme Court ruling in *Euclid v. Ambler* and the adoption of the Standard Zoning Enabling Act. Both legitimized separation. In *Euclid v. Ambler*, the Court affirmed zoning as a valid exercise of police power and endorsed the sanctity of single-family zones by declaring apartments in such zones as almost »nuisances« (see Nelson 1977: 11). And although the Standard Zoning Enabling Act dealt mostly with procedural matters (see Platt 2004), it did mention that land should be zoned for »trade, industry, residence, or other purpose,« thus implicitly endorsing the idea of single-use areas (Department of Commerce 1926).

In the years immediately following 1926, New York's quasi-separationist hierarchical code served as a model for U.S. locales. But after World War II, New York's model lost its appeal and Berkeley's model (in which each zone is deemed suitable for a single use) spread around the U.S. (see Gerckens 2005, 2003). Even New York, when adopting its second code in 1961, moved toward separation by limiting residential-business mix, differentiating between dwelling types and creating exclusively single-family zones (Strickland 1993). By the late 20th century, a large majority of U.S. locales had adopted non-hierarchical codes (Platt 2004). In doing do, they split their land into cells each fit for a single type of activity and outlawed the building of new mixed-use areas.

Current American versus German practice

Today, there is remarkable consistency in zoning districts used across the U.S. In almost all municipalities – Katz (2004) estimates in around 99 percent of them – the districts are land-use-based. In other words, the key factor that distinguishes between districts is the

list of land uses they allow (of course along with area and bulk rules). Regardless of the variation in names (e.g., »business« instead of »commercial,« and »industrial« instead of »manufacturing«), the standard classes of districts are: residential, commercial (often split into retail and office), industrial and agricultural. Separate public districts are also common, albeit less so, since public uses are often conditionally listed in the other zones. The classes are normally subdivided into sub-classes; e.g., residential classes branch into one-family, two-family and multi-family ones. Regarding each land-use district, the zoning code typically specifies the primary (or by-right) permitted uses, the accessory uses (which are closely related to the primary uses; e.g., garages in residential zones), and the conditional uses (e.g., civic buildings in residential zones). In hierarchical codes, as already noted, mix is allowed in the lower-level districts. But in the more common, non-hierarchical codes, the mix is very restricted, and it may occur only as non-conforming use, at the border of neighboring districts, or in a special mixed-use zone. In both hierarchical and non-hierarchical codes, however, the single-family zones ban all other major uses (for a summary, see Platt 2004, Cullingworth 1993).

To my knowledge, there are no studies of exactly what proportion of U.S. locales use hierarchical vs. non-hierarchical codes, nor are there any nationwide surveys of locales with mixed-use zones. Where case studies have been performed, they have pointed to the dominance of non-hierarchical zoning, and the marginal status of mixed use (Grant 2002). Talen and Knaap (2003) showed that while half of Illinois locales have nominally mixed-use zones, most of these zones allow only residential-civic mix while banning the mix of housing types and the mix of retail and housing. Thus, these zones qualify as »mixed-use« only in name. In a study of sixty Ohio locales, Hirt (2007) found that only a fifth of the codes are hierarchical. And although half of all codes had mixed-use zones, they permitted a very limited mix. Levine (2006: 76-79) observed that while single-family zones occupy by far the largest share of territory in any U.S. metropolitan area, they typically ban all other main land uses and are almost immune to variances or re-zonings allowing for land-use change. In short then, American zoning separates uses quite strictly. Exactly how strictly becomes clearer when we look at German practice.

Municipal land-use regulation in Germany is guided by a federal statute: the Federal Land Use Ordinance (*Baunutzungsverordnung* or *BauNVO*). This document defines several districts and the uses they permit (Federal Ministry for Transport, Building and Housing 1990). It is flexible in that it allows locales, when preparing their legally binding plans, to choose which federal categories to use on their land. However, locales cannot invent districts that do not exist in the federal statute. Once they select which federal categories to apply, they must broadly comply with the list of uses permitted under each *BauNVO* category (European Commission 1999a, Dietrich and Dransfeld 1995).

At first glance, the German land-use classes are remarkably similar to their U.S. counterparts. They carry virtually the same names. But there are stark differences in the definitions of German vs. U.S. land-use classes; i.e., in the lists of land uses they permit.

The *BauNVO* lists four land-use classes: residential, mixed, commercial and special.[6] These are divided in ten subclasses: small-scale residential, exclusively residential, general residential, special residential, village-type, mixed-use, town-center, commercial, industrial and special districts.[7] But consider the uses each of them allows. From a U.S. standpoint, almost all qualify as mixed-use. »Small-scale residential« areas may allow the following uses by right: single- and two-family homes, farms, small shops,[8] restaurants, crafts, and non-disturbing industry. The »exclusively residential« areas, despite their name, permit by right all dwellings (without distinguishing between single- and multi-family) but also list small shops, crafts, hotels and civic buildings as special uses. The »general residential« areas allow by right all dwellings,[9] small shops, restaurants and civic buildings; they may permit as special uses hotels, gas stations and non-disturbing industry. Regarding what constitutes »non-disturbing industry,« another statute applies— the German Industrial Norms (*Deutsche Industrienorm* or *DIN 18005*). This statute sets standards for industrial emissions and noise for each of the *BauNVO* residential classes.

Thus, no area is envisioned for only single-family houses. There is no residential-only category to begin with. The residential clas-

ses differ in their *balance* of uses; yet none is single-use.[10] According to the experts, the guiding principle is that at least 50 percent of the land in residential zones should be occupied by dwellings.[11] One expert explained:

»*Clearly, the residential classes are intended so that people can have normal and comfortable living conditions. They are, as their names say, meant for 'living.'*[12] *But how do you define living? You obviously need shelter but you cannot really sustain living without an easy access to things that make it possible – like buying bread or other basic necessities. So having access to such services seems to me as part of living as having shelter. They really are part of the same. So if someone proposes a store in a 'living' district, my thought is whether it enhances living. If it's a big specialized store, most people don't need it in their lives on a daily basis. But if it's a small bakery, I see it as part of daily living.*«

Notwithstanding the above discussion, many city blocks in German cities are single-use. In fact, large areas made of contiguous city blocks may turn only residential and, just as in the U.S.; the urban outskirts often end up dominated by mono-functional chunks of land occupied by mega-stores or industrial campuses. The *BauNVO* does not require mixed use. The only class under which a mix is mandated is the Mixed-use District (*Mischgebiete*). In all other classes, the *BauNVO* only lists the uses which locales *may* allow. Furthermore, it gives locales the flexibility to place additional restrictions. For example, although according to the *BauNVO* the »exclusively residential' areas *may* allow stores, a particular *Bebaungsplan* may ban them. But the experts interviewed said that this is rather rare in German practice. Moreover, they noted that the most restrictive of the *BauNVO* residential classes are all but extinct. The small-scale residential class, which limits dwellings to only single-and two-family, is used only in small villages. The exclusively residential class, which does not restrict dwelling types but allows non-residential only as conditional uses, today takes only an estimated 5-to-10 percent of Stuttgart and does not exist in Bonn at all.[13] [14] In contrast, 66 percent of metro Detroit and 80 percent of metro Cleveland are under single-family zoning, which bans all but single-family houses and their accessories (Hirt 2007, Levine 2006, NOACA 2002).

The following scenario illustrates the difference between German and U.S. standard practice. If a developer proposes a new single-family development occupying several vacant city blocks, located in a predominantly residential part of town, there certainly would be no legal reason to prohibit it in either country. In both, the residential group would normally be zoned under some residential label (most likely »single-family residential« in the U.S. and »general residential« in Germany). However, if a property owner proposes a small new store amid the residences, under U.S. zoning this could occur only if the future store's lot were rezoned as commercial. Such rezoning, however, is in most cases very unlikely. In Germany, in contrast, the store's construction would not require rezoning or other legal reclassification. Rather, the store would already be on the list of permitted uses and planners would be unlikely to ban it, if it would serve only the local residents. In other words, the underlying presumption in the United States is that a store does not fit amid the dwellings, unless proven otherwise; whereas in Germany, the underlying presumption is that the store fits amid the dwellings, unless proven otherwise.

The experience of other European countries

Only a survey of planning across Europe can show whether the German approach is typical. Here I can only offer brief notes on three South European states: Greece, Serbia and Bulgaria. In recent decades, all three have undergone economic or political hardships and, in the case of Serbia, even war. Yet in all three, large cities like Belgrade, Salonica and Sofia are remarkably vibrant. In all three, the planning systems use the same main instruments: a general city plan and multiple legally binding building land-use plans. Yet the level of mixed use allowed exceeds what we find in Germany, not to mention the U.S.

In Serbia, state statutes categorize land-use districts (including residential ones) based on their predominant – not single – use. Belgrade's code interprets the statute in setting specific percentages of residential vs. commercial uses for the various parts of town. The percentage varies from 50/50 to 80/20. No residential areas ban commerce completely. In Greece, a Presidential Decree outlines the following districts: exclusively residential, general residential, central, light industrial, heavy industrial, tourist and green space. But the »exclusively« residential are-

as not only allow all types of dwellings, but also permit by right small stores and small hotels, as well as all civic uses. Note that the decree does not list commercial districts, as commerce is allowed in *all* residential areas. Bulgarian state statutes use almost the same typology, again omitting any reference to commercial areas, as small-scale commerce is deemed an integral part of the residential experience.[15]

Discussion and conclusions: American zoning from the comparative perspective

American zoning of course does not preclude mixed use. Mixed use may occur in special zones, in areas with non-conforming uses, at the borders of single-use zones, or via rezonings and variances even in the standard zoning districts. But American zoning does make mixed use difficult by treating it as an exception. This is, I believe, because eight decades of Euclidean zoning have given land-use separation (especially separation which occurs via the establishment of single-family districts) an air of normalcy and inevitability (Wickersham 2001). Separation has become the »default planning system« (Talen 2005), the »state of nature« (Levine 2006), a habit of the heart. Yet the experience of other countries shows that there is nothing normal or inevitable either about separation or about residential-only districts. In fact, in other countries residential areas are by definition mixed-use and single-family zones do not even exist.

From this perspective, recent planning efforts to promote mixed use in America fall short of their stated goal. If Talen and Knaap (2003) and Hirt (2007) are correct in asserting that the most common zoning tools to encourage mixed use in U.S. locales are planned unit developments (PUD) and mixed-use zones, then this provides further proof that mixed use continues to be treated as an exception. Both tools presume that mixed use is suitable for a few corners of the city and needs its own, exceptional districts. Both are piecemeal solutions that do not question the basic premise of standard zoning: that uses should *normally* be separated. Both reduce the idea of the mixed-use city to that of the mixed-use *part* of the city. Perhaps instead of coloring new spots on the zoning map under »PUD« or »mixed-use« labels, a much more substantive approach – one with citywide impact – would be to revise the zoning text and expand the oppressively short list of permitted uses in the standard residential zones. This could be done, as in Europe, by allowing small-scale commercial uses that will serve the local residents.

Of course aside from PUD there are other, more promising alternatives to standard zoning: performance and form-based codes. Performance zoning was proposed in the U.S. in the 1950s (Scott 1971) and has been used in cities such as Largo, Florida, and Ft. Collins, Colorado. Building on the German tradition of regulating industry, it requires development to meet certain standards (in terms of impervious surface, noise, traffic, etc.) without specifying land use. Form-based zoning, the New Urbanist idea, was proposed in the 1990s and is used in places such as Kendall and Seaside, Florida, and parts of Arlington, Virginia. It ostensibly defines zones according built-form character (scale and style) rather than land use (Katz 2004, Duany et al. 2004, Duany and Talen 2002a, b).

Unfortunately, performance and form-based zoning have had limited impact. Only a few dozen locales have switched from standard to performance zoning. And while Duany et al. (2004) notes that 900 developments with form-based codes have been built (which represents a small proportion of *all* new developments), the website of the Congress for New Urbanism lists only 22 locales with form-based codes (out of 40,000 US cities and towns). Furthermore, form-based zoning is not used town-wide. Rather, form-based or performance elements are co-opted into standard codes as additional rules and applied (like PUD or mixed-use zones) to small areas (Langdon 2006, Miller 2004, Porter 1998).

I believe the root of the problem lies in that we have become too accustomed to guiding urban development by dividing cities into pieces of land, each fit for a single human activity. Yet, international experience shows that a different approach is not only possible but also widely practiced. And I would like to end with an additional problem with form-based zoning, which I see as follows: it goes too far, yet not far enough. By doing away with the familiar categories of residential, commercial and industrial, I believe form-based advocates often shock local officials and citizens alike. Yet there is nothing inherently wrong with land-use-based zoning. In fact, Germa-

ny and the other countries I studied do practice it. But instead of defining use districts in terms of exclusivity, other countries define them in terms of predominance; i.e., residential zones are dominated by dwellings, yet they allow other appropriate uses which enable and complete everyday life. What these appropriate uses are may be defined in terms of form, performance standards, or land-use ratios – all methods are used in some combination in Germany and Southern Europe. Planners may also use their discretion in deciding which services target only the local residents. But while form-based zoning may go »too far« in nominal abolition of standard use-based categories, it does not go far enough in allowing mixed use. For example, Duany and Talen's (2002) »transect« model – the theoretical basis of the so-called *SmartCode* – eliminates use-based zones in favor of the following six alternatives: Rural Preserve, Rural Reserve, Sub-urban Edge, General Urban, Urban Center and Urban Core. Yet only the last two, the Urban Center and the Urban Core, qualify as mixed-use from a European viewpoint. The Sub-urban zone is for single-family detached housing with possible civic or office uses – yet a single-family category does not even exist in Germany. The General Urban zone is for single-family detached and row housing with retail »confined to designated lots, typically at corners« – a definition more restrictive than that of even the »exclusively« residential areas in Greece. So perhaps instead of spending energy on new systems of classification, we should strive to learn more from other countries where mixed use has always been a way of life.

References

ALTERMAN, R. (1997). The challenge of farmland preservation: Lessons from a six-nation comparison. Journal of the American Planning Association, 63(2), 220-243.

AMERICAN PLANNING ASSOCIATION. (1998). Planning Advisory Service Report No. 479: The Principles of Smart Development. Chicago: Author.

ANGOTTI, T. & E. HANHARDT. (2001). Problems and prospects for healthy mixed-use communities in New York City. Planning Practice and Research, 16 (2), 145-154.

ASABERE, P & FORREST, H. (1997). Hierarchical zoning, incompatible uses and price discounts. Real Estate Economics, 25, 439-451.

BEATLEY, T. (2000). Green urbanism: Learning from European Cities. Washington, DC: Island Press.

BOOTH, P. (2003). Planning by Consent: The Origins and Nature of British Development Control. London: Routledge.

BOYER, M. C. (1983). Dreaming the Rational City: The Myth of American City Planning. Cambridge: MIT Press.

BURCHELL, R., DOWNS, A., MUKJERJI, S. & MCCANN, B. (2005). Sprawl Costs: Economic Impacts of Unchecked Development. Washington, DC: Island Press.

BURCHELL, R. & MUKHERJI, S. (2003). Conventional development versus managed growth: The costs of sprawl. American Journal of Public Health 93(9), 1534-1540.

CALTHORPE, P. (1993). The Next American Metropolis: Ecology, Community, and the American Dream. Princeton: Princeton Architectural Press.

CAMPBELL, S. (1996). Green Cities, growing cities, just cities? Urban planning and the contradictions of sustainable development. Journal of the American Planning Association, 62 (3), 296-312.

CODE # 6 ON BUILDING ACCESSIBLE ENVIRONMENTS IN URBANIZED AREAS [Naredba 6 za Izgrajdane na Dostypna Sreda w Urbaniziranite Teritorii; in Bulgarian]. (2004). Sofia: Blestyasht Fakel.

CODE # 7 ON THE REGULATIONS AND STANDARDS OF DEVELOPMENT IN THE VARIOUS TYPES OF AREAS AND BUILDING ZONES [Naredba 7 za Pravila i Normativi za Ustrojstvo na Otdelnite Vidove Teritorii i Ustrojstveni Zoni; in Bulgarian]. (2004). Sofia: Blestyasht Fakel.

CONGRESS FOR THE NEW URBANISM. Model Codes. Available on-line at www.cnu.org/www.cnu.org/pdf/code_catalog_8-1-01.pdf.

CONGRESS FOR THE NEW URBANISM. (2001). New Urbanism: Comprehensive Report & Best Practices Guide. Ithaca: New Urban Publications.

CULLINGWORTH, J. (1993). The Political Culture of Planning: American Land Use Planning in Comparative Perspective. London: Routledge.

DANIELS, T. (2001). Smart growth: A new American approach to regional planning. Planning Practice and Research, 16 (3/4), 271-279.

DEPARTMENT OF COMMERCE. (1926). A Standard State Zoning Enabling Act. Washington, DC: Government Printing Office. Available on-line at www.planning.org/growingsmart/pdf/SZEnablingAct1926/pdf.

DIETRICH, H. & DRANSFELD, E. (1995). Dusseldorf. In J. Berry & S. McGreal (Eds.). European Cities, Planning Systems and Property Markets. London: E & FN Spon.

DOWALL. D. (1984). The Suburban Squeeze. Berkeley: University of California Press.

DOWNS, A. (2005). Smart Growth: Why we discuss it more than we do it. Journal of the American Planning Association, 71(4), 367-380.

DOWNS, A. (2001). What does »smart growth« really mean? Planning, 67(4), 20-25.

DUANY, A., W. WRIGHT, S. SORLINEN, L. HALL, M. WATKINS, D. Slone, G. Hugalde & R. Merson. (2004). SmartCode & Manual. Ithaca: New Urban Publications.

DUANY, A. & TALEN, E. (2002a). Making the good easy: The Smart Code alternative. The Fordham Law Journal, (April),1445-1468.

DUANY, A. & TALEN, E. (2002b). Transect planning. Journal of the American Planning Association, 68 (3), 245-267.

EUROPEAN COMMISSION. (1999a). The EU Compendium of Spatial Planning Systems and Policies: Germany. Luxemburg: Official Publications of the European Communities.

EUROPEAN COMMISSION. (1999b). European Spatial Development Perspective: Toward balanced and Sustainable Development of the Territory of the European Union. Luxemburg: Office for Official Publications of the European Communities.

EWING, R., PENDALL, R. & CHEN, D. (2002). Measuring Sprawl and Its Impacts. Washington, DC: Smart Growth America.

FEDERAL MINISTRY FOR TRANSPORT, BUILDING AND HOUSING. (1990). Federal Land Utilization Ordinance [Baunutzungsverordnung or BauNVO; in German]. Berlin: Author.

FEDERAL MINISTRY FOR TRANSPORT, BUILDING AND HOUSING. (1997a). Federal Building Code [Baugesetzbuch or BauGB; in German]. Berlin: Author.

FEDERAL MINISTRY FOR TRANSPORT, BUILDING AND HOUSING. (1997b). Federal Regional Planning Act [Raumordnungsgesetz or ROG; in German]. Berlin: Author.

FEDERAL OFFICE OF REGIONAL PLANNING, BUILDING AND URBAN DEVELOPMENT. (1993). Law and Practice of Urban Development in the Federal Republic of Germany. Berlin: Author.

FISCHEL, W. (1999). Does the American way of zoning cause the suburbs of metropolitan areas to be too spread out? In A. Altshuler, M. Morill, H. Wolman & F. Mitchell (Eds.). Governance and Opportunity in Metropolitan America. Washington, DC: National Academy Press.

FISCHLER, R. (1998a). The metropolitan dimension of early zoning: Revisiting the 1916 New York City ordinance. Journal of the American Planning Association, 64(2), 170-188.

FISCHLER, R. (1998b). Toward a genealogy of planning: Zoning and the Welfare State. Planning Perspectives, 13, 389-410.

FISCHLER, R. and K. KOLNICK. (2006). American Zoning: German Import or Home Product. Paper presented at the Second World Planning Schools Congress, Mexico City.

GERCKENS, L. (2005). American Zoning & the Physical Isolation of Uses. Available on-line at www.plannersweb.com/articles/ger065.html. Accessed February 2.

GERCKENS, L. (2003). Planning ABC's: An Overview of 26 Planning Topics from Automobile to Zoning. Burlington: Planning Commissioners Journal.

GRANT, J. (2003). Exploring the influence of New Urbanism in community planning practice. Journal of Architectural and Planning Research, 20 (3), 234-253.

GRANT, J. (2002). Mixed use in theory and practice: Canadian experience in implementing a planning principle. Journal of the American Planning Association, 68 (1), 71-84.

HEALEY, P. & R. WILLIAMS. (1993). European urban planning systems: Diversity and convergence. Urban Studies, 30 (4/5), 701-720.

HIRT, S. (2007, forthcoming). The Mixed-use trend: Planning Attitudes and Practices in Northeast Ohio. Journal of Architectural and Planning Research.

HIRT, S. (2005). Toward post-modern urbanism: Evolution of planning in Cleveland, Ohio. Journal of Planning Education and Research, 25 (1), 27-42.

HOPPENBROUWER, E. & E. LOUW. (2005). Mixed-use development: Theory and practice in Amsterdam's Eastern Docklands. European Planning Studies, 13 (7), 967-983.

JACKSON, K. (2005). Transnational borderslands: Metropolitan growth in the United States, Germany and Japan since World War II. Bulletin of the German Historical Institute, 38, 11-32.

JACOBS, A. & D. Appleyard. (1997). Toward an urban design manifesto. Journal of the American Planning Association, 53 (1), 112-120.

JACOBS, J.(1961). The Death and Life of Great American Cities. New York: Random House.

KATZ, P. (2004). Form first: The New Urbanist alternative to conventional zoning. Planning (November).

KIMMINICH, O. (1975). Town and country planning law in the Federal republic of Germany. In J. Garner (Ed.). Planning Law in Western Europe. New York: Elsevier.

KRIER, L. (1988). Traditional ideas for today's towns. City Magazine, 10 (2), 20-23.

KUNSTLER, J. (1996). Home from Nowhere: Remaking Our Everyday World for the Twenty-first Century. New York: Simon & Schuster.

LANGDON, P. (2006). The not-so-secret code. Planning (January).

LAW ON THE CONTENT AND PREPARATION OF URBAN PLANS. (1999). State Newspaper of the Republic of Serbia 33, 538, July 16. [Pravilnik o Sadrrjini i Izradi Urbanistichkog Plana, Slujebni Glasnik RS; in Serbian].

LAW ON TERRITORIAL DEVELOPMENT. (2001). [Zakon za Ustrojstvoto na Teritoriyata; in Bulgarian]. Sofia: Soloton Press.

LAW ON TERRITORIAL DEVELOPMENT. (1995). State Newspaper of the Republic of Serbia 44, 1636, [Zakon o Gradyevinskom Zemlishtu, Slujebni Glasnik RS; in Serbian).

LEFCOE, G. (1979). Land Development in Crowded Places: Lessons from Abroad. Washington, DC: The Conservation Foundation.

LEVINE, J. (2006). Zoned Out: Regulation, Markets and Choices in Transportation and Metropolitan Land Use. Washington, DC: Resources for the Future.

LEVY, J. (2006). Contemporary Urban Planning. Englewood Cliffs: Prentice Hall.

LIEBMANN, G. (1996). Modernization of zoning: A means to reform. Regulation, 2. Available at www.cato.org/pubs/regulation/reg19n2f.html.

LOGAN, T. (1976). The Americanization of German zoning. Journal of the American Institute of Planners, 42 (4), 377-385.

MILLER, J. (2004). SmartCodes, SmartPlaces. Available on-line at www.realtor.org/SG3.nsf/pages/summer04sm?OpenDocument.

MINISTRY OF THE ENVIRONMENT, URBAN PLANNING AND PUBLIC WORKS. Decree on Urban Design Standards. State Newspaper, 285, March 5 [Ephimeris tis Kiverniseos tis Elllenikis Demokratias Tefchos Tetarto, Arithmos Fillou, 285, 5 Martiou; in Greek].

MONTGOMERY, J. (1998). Making a city: Urbanity, vitality and urban design. Journal of Urban Design, 3 (1): 93-115.

NOACA (Northeast Ohio Area Coordinating Agency). (2002). Summary of NOACA Region's Five-County Zoning Data. Available at www.noaca.org.

NELSON, R. (1977). Zoning and Property Rights: An Analysis of the American System of Land-Use Regulation. Cambridge: MIT Press.

NEWMAN, P. & A. THORNLEY. (1996). Urban Planning in Europe: International Competition, National Systems and Planning Projects. London: Routledge.

NIVOLA, P. (1999). Laws of the Landscape: How Policies Shape Cities in Europe and America. Washington, D.C.: Brookings Institution Press.

OFFICE OF THE DEPUTY PRIME MINISTER (ODPM). (2005). Mixed Use Development, Practice and Potential. Available at www.odpm.gov.uk/stellent/groups/odmp_planning.

ORDINANCE OF THE CITY OF BELGRADE. (2003). [Slujebni List Grada Beograda; in Serbian]. Made available to the author by planning staff at the City of Belgrade, Serbia

PENDALL, R. (1999). Do land use controls cause sprawl? Environment and Planning B: Planning and Design, 26 (4), 555-571.

PLATT, R. (2004). Land Use and Society: Geography, Law and Public Policy. Washington, DC: Island Press.

PORTER, D. (1998). Flexible zoning: A status report on performance standards. Zoning News. (January).

POLLARD, W. (1931). Outline of the law of zoning in the United States. Annals of the American Academy of Political and Social Science, 155 (2), 15-33.

PRESIDENTIAL DECREE ON LAND-USE AREAS CATEGORIES AND CONTENT. (1990) [Proedriko Diatagma tis 23-2/6-3-87 (FEK - 166A): Katigories ke Periochomeno Chriseon Gis; in Greek]. Made available to the author by planning staff in the City of Salonica, Greece.

ROWLEY, A. (1996). Mixed-use development: Ambiguous concept, simplistic analysis and wishful thinking? Planning Practice and Research, 11 (1), 85-98.

SCOTT, M. (1971). American City Planning since 1890. Berkeley: University of California.

SCHMIDT-EICHSTAEDT, G. (2001). National-level planning institutions and decisions in the Federal Republic of Germany. In R. Alterman (Ed.). National-level Planning in Democratic Countries: An International Comparison of City and Regional Policy-making. Liverpool: Liverpool University Press.

SCHWANKE, D., PHILLIP, P., VERSEL, D., FADER, S., HOLST, L., JERSHOW, O. & MYERSON, D. (1987). Mixed-use Development Handbook. Washington, DC: The Urban Land Institute.

STRICKLAND, R. (1993). The 1961 zoning revision and the template of the Ideal City. In T. Bressi (Ed.) Planning and Zoning New York City: Yesterday, Today and Tomorrow. New Brunswick: Center for Urban Policy Research.

SIY, E. (2004). Learning from Abroad: The European Approach to Smarter Growth and Sustainable Development. Available on-line at www.fundersnetwork.org/usr_doc.

SPEIR, C. & K. Stevenson (2002). Does sprawl cost us all? Isolating the effects of housing patterns on public water and sewer costs. Journal of the American Planning Association, 1 (68), 56-70.

SYKORA, L. (1995). Prague. In J. Berry & S. McGreal (Eds.) European Cities, Planning Systems and Property Markets. London: E & FN Spon.

TALEN, E. (2006). Design that enables diversity: The complications of a planning ideal. Journal of Planning Literature, 20 (3), 233-249.

TALEN, E. (2005). New Urbanism and American Planning: The Conflict of Cultures. London: Routledge.

TALEN, E. & G. Knaap. (2003). Legalizing Smart Growth: An empirical study of land use regulation in Illinois. Journal of Planning Education and Research, 22 (4), 345-359.

VON SALDERN, A. (2005). The suburbanization of German and American cities. Bulletin of the German Historical Institute, 38, 33-49.

WICKERSHAM, J. (2001). Jane Jacobs's critique of zoning: From Euclid to Portland and beyond. Boston College Environmental Affairs Law Review, 28 (4), 547-563.

WIEGANDT, C. (2004). Mixed Land Use in Germany: Chances, Benefits and Constraints. Available on-line at www.smartgrowth.umd.edu/InternationalConference/internationalconference.htm.

WIEGANDT, C. (2000). Urban Development and Urban Policy in Germany: An Overview. Bonn: Federal Office for Regional Planning and Building.

WILLIS, C. (1993). In T. Bressi (Ed.) Planning and Zoning New York City: Yesterday, Today and Tomorrow. New Brunswick: Center for Urban Policy Research.

[1] The First American National Conference on City Planning in 1909 lavishly praised German zoning (Willis 1993: 13). Speaking at the conference, F. L. Olmsted, Jr. pointed to Germany as the country from which U.S. planners should be learning most (Fischler and Kolnick 2006). Over time, many U.S. zoning pioneers such as E. Bassett, A. Bettman, F. Howe, J. Nolen, B. Marsh and L. Veiller admitted their debt to Germany (Liebmann 1996, Talen 2005: 132, Fischler 1998b: 400, Logan 1976: 377, Scott 1971: 128-31).

[2] There is, however, an important difference here. The German states yield much greater power than their American counterparts in that they prepare general state plans. Local plans must conform to the state plans and are approved at the state level (Federal Ministry for Transport, Building and Housing 1997b; Federal Office of Regional Planning, Building and Urban Development 1993; Schmitd-Eichstaedt 2001).

[3] The Federal Building Code (*Baugesetzbuch* or *BauGB*) sets the relationship between the Preparatory and the Building Land-use Plans (Federal Ministry of Transport, Building and Housing 1997a; Federal Office of Regional Planning, Building and Urban Development 1993). The system has been in place since 1961.

[4] Literally, the term means »plan for the use of land for building purposes.«

[5] Düsseldorf, e.g., has around 3,000 such plans (Dietrich and Dransfield 1995). Stuttgart has around 5,000.

[6] Like U.S. codes, the *BauNVO* does not only control land uses but also sets bulk and area standards (e.g., open-to-built and floor-to-area ratios) for each land-use class. More standards are set in the *Bebaungspläne*.

[7] In German these are: *Kleinsiedlungsgebiete, Reine Wohngebiete, Allgemeine Wohngebiete, Besondere Wohngebiete, Dorfgebiete, Mischgebiete, Kerngebiete, Gewerbegebiete, Industriegebiete & Songergebiete*.

[8] The *BauNVO* does not impose size limits on stores in residential area but allows stores that »serve the daily needs of the neighborhood residents.« According to the experts, a large store like IKEA, which draws upon a regional market, could never fit into this category. When a shop is proposed in a residential area, the planners will analyze the proposal in terms of whether it will serve only the local neighborhood residents.

[9] This does not mean that one can build a high-rise in any residential area. The *BauNVO* controls building mass through open-to-built ratios and floor-to-area ratios. The *Bebaungsplan* sets strict rules regarding setbacks, heights, etc. to ensure that the physical form of a building makes it conform to its surroundings.

[10] In fact, the Commercial and Industrial classes in the *BauNVO* allow much less mixed-use than the residential classes. In both the Industrial and the Commercial areas, the only permitted dwellings are those of the facility owners and managers. According to the experts, it is presumed that most small to medium commerce and clean industries are dispersed in the residential areas. Thus, the Industrial and Commercial areas usually house large enterprises with disturbing effects. Hence most dwellings there are discouraged.

[11] Similarly, if a doctor or lawyer wanted to convert his or her residence to a professional practice, the prevailing principle would be that at least 50 percent of the building must remain in residential use.

[12] The names of the residential classes *Reine Wohngebiete, Allgemeine Wohngebiete,* and *Besondere Wohngebiete* are derived from the German verb »*wohnen*,« which means »to live.«

[13] Unfortunately, unlike American cities, German cities do not maintain precise statistics on the percentage of their areas zoned under the various land-use classes. Thus, the figures I cite are based on the interviews.

[14] It is important to note that not all parts of German cities are covered by *Bebaungspläne*. Historic areas often do not have *Bebaungspläne* since they are already built-out and thus there is no need to provide them with a legal document stating what is permissible to build in the future. If significant changes in either land use or form are proposed for such an area, the so-called »blend-in« rule applies (*BauNVO* & 34). This rule states that proposed buildings »blend-in« with the existing surroundings. Technically, the »blend-in« rule may be used to either to increase or to decrease the level of mixed use. If an area is occupied only by housing, the »blend-in« rule requires that only residences be built there in the future. But most historic areas are already mixed-use, so in most cases the rule implies that this mixed-use character should be maintained.

[15] These notes are based on visits to Belgrade, Salonica and Sofia; 6 expert interviews (2 per city); and a review of the following translated statutes: from Serbian, Law on Territorial Development (1995), Law on the Content of Urban Plans (1998) and Belgrade's Ordinance (2003); from Greek, Presidential Decree on Land-use Areas (1990) and Ministry of the Environment, Urban Planning and Public Works' Urban Design Standards (2004); and from Bulgarian, Law on Territorial Development (2001), and Codes 6 and 7 (2004).