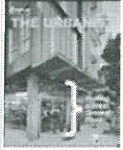




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From **THE URBANIST** Issue 534 • June 2014

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Designing at Ground Level

An emphasis on human scale — and on creating a great ground floor — are essential to good urbanism.

BENJAMIN GRANT

ARTICLE June 3, 2014



"The ballet of the good city sidewalk never repeats itself from place to place, and in any one place is always replete with new improvisations." —Jane Jacobs
ActivSpace photo by David Baker Architects

The image is probably the most widely shared touchstone in planning: An urban building with apartments upstairs and a café on the ground floor. For any planner who came of age after *The Death and Life of Great American Cities*, this image encapsulates the field. Density. Mixed use. Pedestrian orientation. Human scale. Eyes on the street. The "Third Place." Name your urbanist maxim, it's in this picture.

For many planners, it is this image that first unlocked the idea of urbanism. Most of us have conjured it up repeatedly to explain the magic of cities to relatives, dates, dentists or party guests. But all too often it ends there. We rarely subject this image to much scrutiny, perhaps because it's so useful, and because achieving anything resembling it has consumed the careers of a generation of planners.

It took the Jane Jacobs generation to rescue the ground floor from insignificance, and to reassert the value of social, civic and economic encounter at street level. Today's planners, architects and entrepreneurs stand on the shoulders of giants. They take for granted that urbanism happens at street level, and they view the interaction of building and street as a medium for creative experimentation. They are, on the whole, less concerned about height, mass and the skyline than the preceding generation. If human scale is honored, "density" and "high-rise" are not the dirty words they once were.

In the American city, a new and long-absent facility of the public realm has taken hold. Its geography is uneven, it fruits inequitably distributed, but from pop-up shops to graffiti walls to maker spaces, it is growing. We may well look back on this period as the time when the urban project stopped recovering from the 20th century and started inventing the 21st.

Why is the ground floor so important?

Public life is the essence of urbanism. The city's ability to facilitate movement, commerce, democracy, innovation and creativity resides in the currents and eddies of human beings at the boundary of public and private space, where homes, jobs, shops and civic buildings touch streets, parks and plazas.

In a good urban neighborhood, the ground floors of the buildings work symbiotically with the surrounding sidewalks and public spaces. Together they provide a continuous network of pathways and experiences that are active, safe, comfortable and engaging. The ground-floor café (and retail more generally) is but one of many good ways for buildings to meet the street. After all, even a coffee-crazed town like San Francisco can't have a café — or even retail — in every building. A good city requires solutions as varied as its fabric and its people and must constantly invent new ones.



In Paris, the sidewalk café is an institution, one of many ways the ground floor is activated in this famously walkable city. But making a great ground floor isn't as simple as putting in a café. Photo by Metamirst.

After a half-century of misguided obeisance to the needs of automobiles, we have begun the long process of reclaiming our cities' streets for people. This issue of The Urbanist is devoted to the building side of that symbiosis. Because as it turns out, making the ground floor of urban buildings work is quite a tricky problem, and one that is far from resolved. It is tangled in tensions between policies and markets, cars and people, codes and desires.

New ways of living, working and socializing have generated new policies and different, more adaptable spaces. A roll-up door can turn a streetside loft within a parking podium from residence to store, to production space and back. Today's designers, builders, artists and entrepreneurs, steeped in urbanism, are blurring the lines among uses and the spaces they inhabit — and getting away with it.

A brief history of the ground floor

Ground floor retail has its origins in the homes of urban artisans in medieval and Roman cities. Where fortifications put space at a premium, the family home was often above the family workshop, and business was conducted through an opening onto the street.

By the late 18th century, workshops were giving way to factories, and, in Paris and London, plate glass and gaslight helped create the urban storefront as we know it — a space for shopping, not making. In the 19th century, the era of the flaneur, the street itself was reinvented as a genteel public space, and grand treelined boulevards played host to a fashionable parade of shopping, self-presentation and spectacle.

Modernist architects like Le Corbusier were suspicious of commerce, and found the tight, clamorous spaces of the 19th-century city oppressively filthy and congested. They sought to "free the ground plane" by raising their towers on stilt-like pilotis, so that citizens might wander through a new species of park-like city at their ease, never channeled into something as vulgar as a street. These architects peeled apart the city's mixture, and in doing so they created separate sectors for offices, factories and homes, and built pedestrian sky bridges over sweeping expressways. The intended spaces of discovery became spaces of desolation.

In the mid-to-late 20th century, the car was king. In subdivisions, shopping malls, housing projects and office complexes, inward looking, single-use environments were the norm. For nearly half a century, urban development in the U.S. got an almost total pass from pedestrian considerations, leaving a legacy of blank walls, narrow or non-existent sidewalks and dead spaces.

In the 1960s, critics like Jane Jacobs and architects like Oscar Newman and Jan Gehl began investigating exactly what it was that made traditional urbanism (then under attack) work so well. They zeroed in on the interaction of building edges, public streets, and social interaction, creating some of the classic analyses in urban design. Their efforts revolutionized urban design, and their emphasis on the human scale — once dismissed as quaint and unscientific — has become planning orthodoxy.

Today, walkable streets enlivened by active uses are a widely shared priority, critical to supporting transit, reducing carbon emissions and tackling chronic diseases. But bringing streets to life — especially outside city centers — can be quite a challenge.

Planning and regulating the ground floor

Planning policies often look to manage the use and design of the ground floor to support the public realm. Here are some of the things they can control:

Height

The height of a ground floor has a major impact on its performance. Good retail spaces usually need a 15-18-foot ground floor. (David Baker Architects has been advocating for 20 feet; see pp. 10). A higher ground floor allows adequate space for residential stoops raised a half level, mechanically stacked parking, or groundfloor lofts, workshop space or open lobbies.

Depth

Depth is also important. It is not uncommon for retail tenants or brokers to demand spaces 40 feet deep. Retail depth is often in tension with the need to provide parking behind.

Frontage

Policies may stipulate the minimum frontage that must be occupied by active uses, or minimum frontage of transparent glass. They may also define maximum frontages for exposed parking, utility functions or a single user. A single large user such as a big-box retailer may be required to provide "in-line" storefronts.

Parking

Parking is the single biggest driver of ground-floor design and a major factor in the economics of development. Planning codes typically regulate the amount of parking and may also address its placement and design treatment (by limiting its exposure to the street, for example).

Building height and building type

Building heights are shaped by the interaction of planning and building codes. The most common multifamily building types put up to five stories of wood-frame construction atop a concrete parking and retail podium. Height limits of 40, 50 or 60 feet often resulted in a cramped 10-foot ground floor with three to five 10-foot stories above. Five additional feet — now permitted by the California building code and increasingly by local zoning codes — adds enough room for a more generous ground floor without adding a story overall.

Utilities and other challenges

Numerous other features must fit into ground floor frontages. These include electrical transformers, fireplugs, ventilation systems, loading docks and trash rooms. When combined with entrances and auto access, there is often little frontage left to work with.

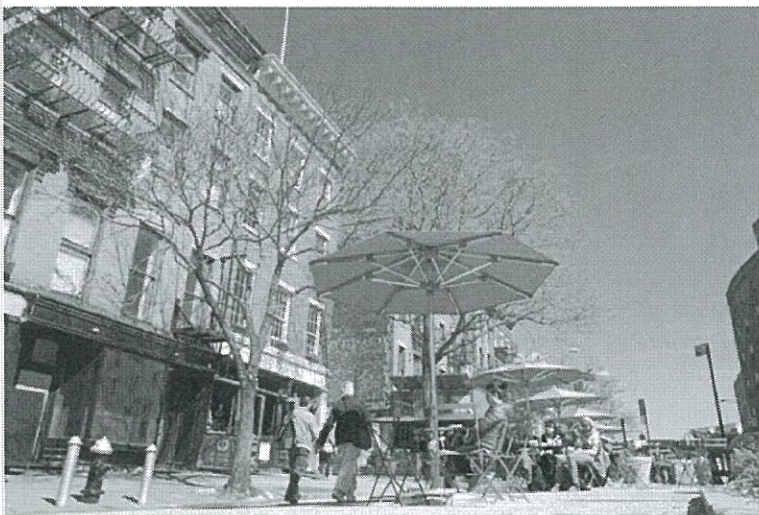
Use

Many cities encourage or require "active uses" in the ground floor of new buildings, which varies from an outright requirement for retail, to broader definitions that include residential doorways. Parking is often the major ground floor use, but policies frequently require that it be hidden. New use categories, like PDR (production/ distribution/repair) as well as co-working, and mixed production and retail have been codified in recent years. —B.G.



experiments in iterative development. Photo courtesy envelope A+D.

The Proxy Project in Hayes Valley, by envelope A+D, exemplifies the success of



attainable tools as bright paint and inexpensive furniture — and an openness to change. Photo by Noah Christman.

Simple transformations have been achieved throughout New York with such easily

Making retail work: The market problem

Just because planners allow, or even require, ground floor retail spaces, does not mean there will be ground-floor retail. Retailers, who live and die according to foot traffic, visibility and neighboring stores, are very sensitive to both location and quality of their spaces and they are well aware that if you build it, customers won't automatically come.

Planners don't create cafes (or restaurants or grocery stores) and for the most part, neither do developers. Entrepreneurs do. It is true that a building without a storefront will never contain a store. On the other hand, the world is full of empty storefronts. The weakness of ground-floor retail in mixed-use construction is so notorious that developers routinely write it off, assuming no revenue at all.

Very often, unoccupied retail space is inhabited as inexpensive office space, by social service agencies, nonprofits, and the like. Some of these – say a clinic or employment center, might work well in a storefront. Others opt to simply lower the Venetian blinds and function as an office. We tend to focus on and remember the zones of gathering and shopping in our cities while often forgetting the quiet (and much more numerous) back streets that sustain them. In trying to create great urban places, both planners and the public tend to want to over-supply retail space. Most urban ground floors, even in Manhattan (shown above) or Paris, serve a single use. The foot traffic and buying power of a whole district is then channeled into supporting a lively street life in limited area — given walkable streets and sufficient density.

In today's white-hot San Francisco, ground-floor retail has pretty good prospects, and businesses can and do make use of all kinds of spaces, from the 12-foot frontages along Hayes Street to ActivSpace on 18th and Treat Streets, which houses a thriving café in just 99 square feet. But elsewhere, ground floor space often sits empty, a planner's aspiration that never bore fruit.

In downtown San Jose, where empty ground floors are common, the challenge of implementing the right storefront strategy was highlighted in a recent debate over whether to allow office uses in ground floor retail spaces. Ground-floor office space does little to engage the street, but one could argue that some use is preferable to none at all.

So do we build for the market that exists, or for the market we hope will one day exist? The cost of empty retail space is simply folded into the cost of the space upstairs. But urban districts take time to mature and once they do, demand can change dramatically in a short time. Sometimes all it takes is one amazing business to totally transform a place — and a market.

But how to figure out what that business is? Trying things out on a temporary basis can often yield longterm solutions. If you want to shift the way a space is perceived, make something interesting happen there and pack it full of people. A market, after all, is only the aggregate of people's assumptions and experiences — things that can be engaged and shaped.

Long before taco trucks became a global phenomenon, they were simply a cheap way to create a mobile storefront. Many developed semi-fixed locations, enlivened by loyal patrons. Lately, food truck gatherings like San Francisco's "Off the Grid" have joined farmers' markets, shipping containers and pop-up shops as part of a suite of solutions that create instant, low-risk critical mass. These tactical approaches are increasingly being deployed to enliven public space in advance of conventional development projects.



Retail along 8th Street keeps things lively at San Francisco's 8th & Howard/ SOMA

Studios, which has 162 units of affordable housing. SOMA Studios designed by David Baker Architects, photo by Brian Rose.

Ground floor code reform in San Francisco

In recent years, San Francisco, with the help of advocacy groups like Livable City, has revised significant portions of the planning code, with a focus on making the ground floor work for pedestrians. They include:

- No parking required in transit-oriented housing.
- Minimum ground floor heights were increased to as much as 17 feet.

- Transit-oriented districts were allowed a 5-foot height bonus within the ground floor.
- Active uses required to a depth of 25 feet from the street frontage.
- Ground floor parking must be 25 feet from the street frontage.
- Parking on upper floors must have level floors, minimum floor-to-floor heights and other features to ensure they can be converted to other uses in the future.
- Stackers and other space-efficient parking solutions are permitted as-of-right.
- Neighborhood Commercial zoning was loosened to allow for limited production. Prescriptive limits on equipment and facilities were replaced with performance standards for noise, odors etc.
- PDR zoning was loosened to allow limited retail sales onsite.



One South Market is the first new residential tower in downtown San Jose to be built since the recession. When initial designs gave short shrift to ground floor retail spaces, SPUR worked with city officials, the San Jose Downtown Association and other advocates to support deeper, better-equipped retail spaces and limit exposed parking. The result is increased retail demand and street life much akin to the daily rhythm of the city's Paseo de San Antonio (pictured). Photo by Sergio Ruiz.

San Francisco's ground floor: An urban design success story

San Francisco has made major strides over the past decade in its treatment of the ground floor. Planning policies, the development industry and local communities have all begun to crack the code on urbanism, and in structures both new and old, street life is thriving. Although perennial tensions around the pace and shape of growth have again come to the fore, one thing seems certain: The urban design quality of the current development boom is vastly improved.

In recent years, San Francisco has modified its zoning code in a variety of ways to improve how new buildings engage the street. A lot of these changes were facilitated by a sea change in regulations, markets, and public culture on the issue of parking, which is generally the single biggest driver of ground floor design. Today, some housing is being built without any dedicated parking, a prospect that seemed radical a decade ago. It's not that parking is no longer valued but that street life is valued more.

Zoning came into being to separate "noxious" industrial uses from residences, even as industry was already leaving American cities for the suburbs and the developing world. The later revival of city life in America depended in part on repurposing the city from production to consumption, as a playground for shopping, dining and entertainment. But recent years have seen a surprising return of urban production.

With scarce land being converted to office and high-end residential, "Production, Distribution and Repair" (or PDR), is a zoning designation meant to protect critical light-industrial functions and the jobs they provide. This has corresponded with a rise in new kinds of businesses, combining artisanal and craft production, digitally-enabled fabrication and prototyping, and small-scale service and retail. Taken together, these new uses have significant implications for the texture of the city as encountered at the ground floor. Far from being a noxious use, production has become an amenity.

Recent reforms to the zoning code have increased the flexibility in combining production and retail in San Francisco. Small retail outlets are now allowed in PDR space (Heath Ceramics is one notable example), and production is now permitted in neighborhood commercial districts, with performance standards to address noise, odors or other potential nuisances.

More and more people can work anywhere, and a great many of them choose to do so in cities, among other people. Cafés are packed with mobile workers on laptops, blurring the line in both time and space between the workplace, the public realm and the third place of public social interaction. Co-working spaces, which combine social interaction with office facilities and business support, often with a deliberate connection to the street, are a significant new land use category.

Architects, designers, planners and entrepreneurs are adapting to these changes with new, hybrid forms. More than ever, the basics of good urbanism — generous spaces, active uses, limits on the impact of cars — are locked into policy, while the program at street level is open-ended, flexible and hybridized.

Elsewhere, the story is not so upbeat. In much of the region, life at street level remains an aspiration, and it is often compromised by deference to the automobile in both markets and regulations. In communities where the café in the ground floor has struggled to find traction, the flexible models being pioneered in San Francisco could be a valuable export.

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