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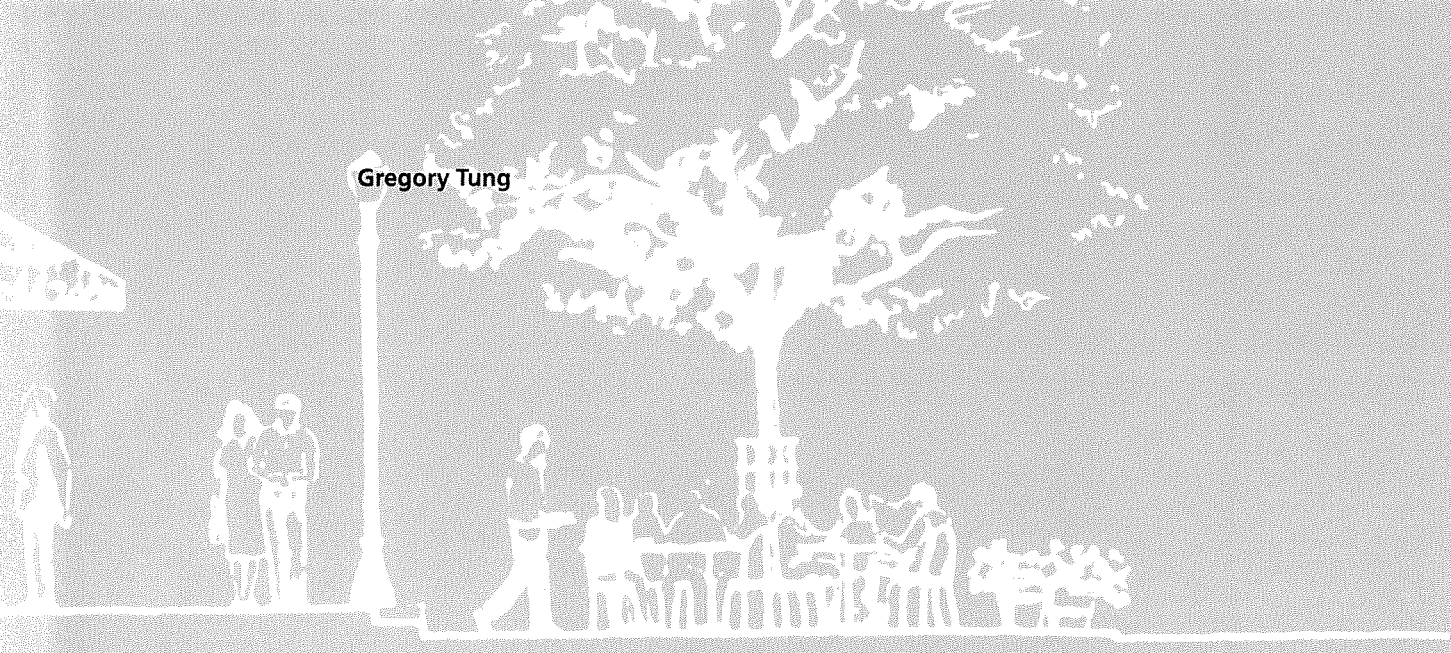


Overlap Zones in the Street Section

In cities abroad or in our own countryside, we often encounter a more casual use of street space than we do in urban America. In these cheerfully promiscuous streets, cars in motion, pedestrians, parked vehicles, people sitting and street vendors mix and occupy varying portions of the street and sidewalk throughout the day, apparently in peaceable coexistence.

This flexibility occurs precisely at the interface between car spaces and people spaces. What feels different is that rather than only being a dividing line, the interface has become a space in itself, an "overlap zone" in the street section.

However charming some of us might find Mediterranean habits of street use – cars opportunistically parked on sidewalks, vendors and outdoor cafes sandwiched between them, people threading their way through – we'd quickly accumulate parking tickets and towing charges if we tried them at home. American laws are unambiguous about vehicles blocking sidewalks and our street engineering is similarly singular about where cars and people ought to be.

A certain one-dimensionality in street design and character usually results when a street is designed under this regimen. A zoning of the street section takes place, as rigid as the oft-criticized single-use character of suburbs. The center of the paved right-of-way is permanently dedicated for moving vehicles; areas in front of curb faces are reserved for parking or drop-off; and the remaining slices of space above the curbs are for walking and other pedestrian activity.

Ways of drawing and thinking about street spaces contribute to this attitude. A street section drawn in isolation can encourage the impression that the street is to be endlessly extruded. The metaphors of traffic engineering – "flow," "capacity," "design speed" – and the discipline's virtual monopoly over street design in the last fifty years have furthered this simplification of street space.[1]

The last generation has seen a shift in professional consciousness. The coverage of street space in *Architectural Graphic Standards* provides some indication: In the seventh edition (1981), street design is discussed and shown only in plan view, and solely in a suburban planned unit development context. In the eighth edition (1988), the street section drawing is reintroduced and the street space is analyzed as an urban space made by buildings, along with a simple presentation of street hierarchy. In the ninth edition (1994), Andres Duany and Elizabeth Plater-Zyberk have contributed to a multipage treatise on street design from a New Urbanist perspective.

Cultural changes and retailing trends have also played a part. Increased overseas travel has made images and experiences of colorful mixed-use streets and spaces more familiar, along with the growing influence of ethnic quarters and cuisines in American cities. The growth and maturation of the suburbs has created a demand for a more digestible urbanity closer to home, ranging from ad-hoc, small-town street closures for farmers' markets to retooled shopping malls with curving simulated main streets.

Overlap zones offer a potential for redefining the spatial relationship between cars and pedestrians and increasing the pedestrian-friendliness of

Opposite page: On Castro Street, a commercial street in downtown Mountain View, Calif., the overlap zone is between the sidewalk and the traffic lanes. It can be used for cafe tables, street vendors or diagonal parking (see following pages). Graphics courtesy Freedman Tung and Bottomley.

The promiscuous street: Pedestrians, parking and traffic achieve a peaceful coexistence on Milan's Foro Buonaparte. Photos courtesy Gregory Tung.

city districts. An early example of this was a retrofit of University Avenue in downtown Palo Alto where new London Plane trees were located in the parking lane in curbed islands, spaced every 48 feet along both sides of this traditional main street.[2] This reduced the visual width of the street (trees on opposite sides of the street are 43 feet apart), without changing the widths of sidewalks or vehicle lanes or moving curbs and drainage lines (curb-to-curb distance at 51 feet).

Motorists appeared to sense the constraint of a seemingly narrower street corridor and slowed down, perhaps even beginning to notice merchandise in shop windows. Pedestrians sensed a broader walking corridor between the buildings and the trees, even though the sidewalk width remained the same. At the street corners, sidewalk "bow-outs" expanded into the parking lanes, creating a real increase in pedestrian territory where people actually had to confront drivers to cross the street.

Above: On Welch Avenue, in Ames, Iowa, street lights were placed in the parking lane as an alternative to trees for establishing vertical definition. Right: Castro Street in Mountain View. The street was reduced from four traffic lanes to three, and the extra space was used to create wide, flexible-use "overlap zones" on both sides.

In 1989, urban designer Michael Freedman and I took this a step further in the redesign of Castro Street in the downtown of neighboring Mountain View.[3] One travel lane was eliminated, traded off for the expansion and conversion of two parking lanes into flexible zones: highly designed multi-use spaces between the dedicated pedestrian sidewalk space and the moving traffic stream. The flexible zones would permit either convenience parking or pedestrian uses like sidewalk cafes at will, without any street reconstruction (at the time, we thought this would help Castro Street's sole healthy economic sector, the restaurant trade). Storefront businesses now apply for a use permit and their sidewalk cafe plans are regulated by the city.

The flexible zones were configured with a suite of design features intended to be seen and enjoyed at walking speed. These included: *material cues,* such as pigmented pattern-stamped concrete for pedestrian–auto spaces that read primarily as pedestrian paving, *spatial definition,* by using rows of Idaho Locust trees in flush tree wells centered in the zone or bordering objects (fixed precast concrete bench/ planters, stair curbs studded with streetlights, portable planters for edges of sidewalk cafes), *body imagery and geometric ordering* principles like bilateral symmetry, capital-shaft-base articulation, serial repetition and linear alignment. Wherever possible, every artifact and relationship was imbued with pedestrian speed, scale and texture, while maintaining conventions of use by motorists and pedestrians alike.

Castro Street's flexible zone created a full overlap between pedestrian and auto use and territorial boundaries. Architects have traditionally developed similar gradients and interpenetrations of public and private space in the front yard of buildings, what architect Daniel Solomon calls the "encroachment zone." In streetscape design, the gradients have to happen inside conventional and existing entities: a row of parked cars becomes a multi-use space, or a curb becomes a stair and sometimes a bleacher.

With a public mandate to radically improve the pedestrian friendliness of streets in downtown Phoenix, we recently explored a range of manipulations of the overlap zone on three major street corridors.[4] While the activity overlaps were not as pronounced as in Mountain View, the different use of edge-defining vertical elements illustrates

Canopies shelter a cafe in the Castro Street overlap zone.

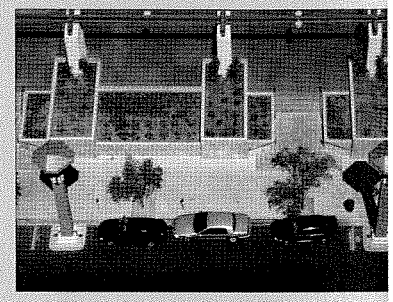
the potential for creating different place experiences within a gridiron of one-way downtown streets in an archetypical Sunbelt city.

Borrowing from the colonnaded Via della Conciliazione in Rome and Van Ness Avenue in San Francisco, we added flanking rows of 30-foot-tall freestanding light columns to existing parking lanes on three blocks of Second Street, creating 1:2 Renaissance proportions for what had been an irregularly contained corridor space. With the Phoenix Suns' home arena on the street's south terminus and the new streetscape treatment, Second Street has become a true processional way (and a setting for future victory celebrations).

Intersecting east-west Adams and Monroe Streets were planted with blue Palo Verde trees or Monumental Date palm trees in curbed wells in parking lanes. With a restoration of two-way travel on these streets, the width of one lane was traded off for new diagonal parking to support storefront businesses.

Capital improvements were focused on vertical elements instead of areas of flatwork for maximum impact. Dramatic uplighting of columns and trees and high-level area lighting were essential to re-creating downtown as a new public nighttime environment.[5] Along with exciting new museums and other municipal projects, the streetscape improvements are part of setting the public stage for downtown Phoenix's rapidly expanding civic life.

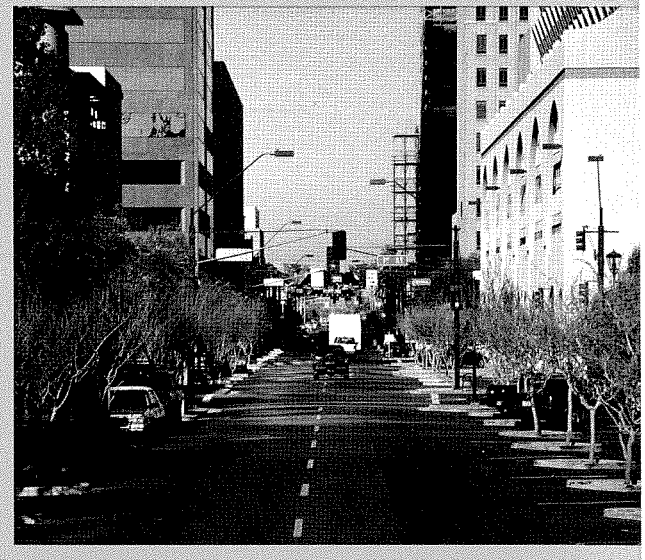
How do we introduce these unconventional or unfamiliar street design concepts to curious public audiences, distracted public officials and skeptical engineers (the adjectives are all interchangeable, of

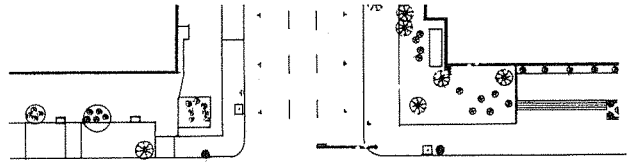


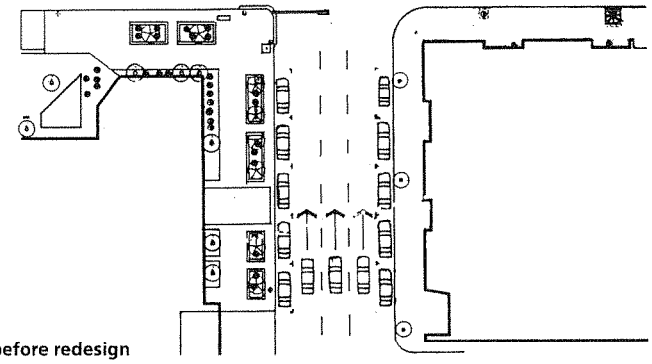
Lighting and trees are interspersed with parking areas along Second Street (left) and Adams Street (below left) in downtown Phoenix.

course)? In all of these projects, we have referred to existing models, demonstrated with visual explanations — slides, drawings and in-person walk-through tours. If a favorite urban design feature is from abroad, we should show it together with an American counterpart, with as many of the latter as possible. We've stressed that all of these seemingly new ensembles are made of familiar small components; the delight of urban design comes in telling the story of how it's happening right here, in your very own town.

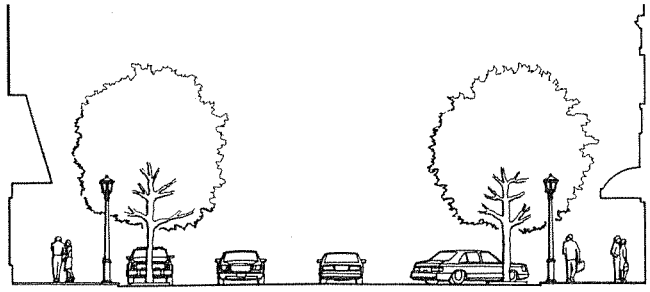
When architects and engineers were first asked to design Skylab and other spacecraft environments, they quickly brought to their task an understanding of how small spaces had to play many perceptual roles and functions, to help preserve the sanity of the inhabitants as well as provide functional habitat. We hope that more attention to public realm design can bring a similar attention to the street, after a century or so of often uneasy coexistence between pedestrians and cars.



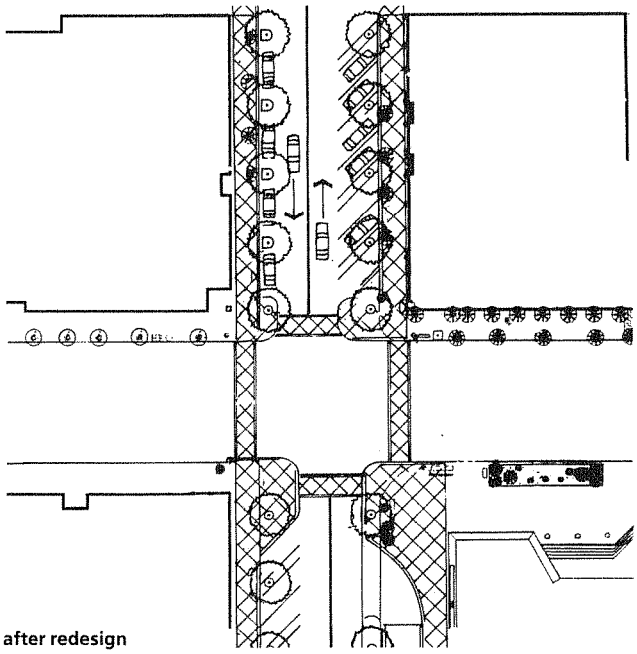




Monroe Street before redesign



Monroe Street after redesign



Monroe Street after redesign

Notes

1. Street space as architecturally designed and sequenced urban space was last championed in the U.S. by Walter Hegemann and Elbert Peets in 1922. See "Architectural Street Design," chapter four in Hegemann and Peets, *The American Vitruvius: An Architect's Handbook of Civic Art* (New York: Princeton Architectural Press, 1988), a reprint of the 1922 original.
2. Designed in 1973 by ROMA, San Francisco, and Johnson Lefingwell & Associates Landscape Architects, San Francisco.
3. See Gregory Tung, "Mountain View, California: Fiat Res Publica," *Places* 5:4 (1989).
4. The 1994 "Downtown Visioning Process," conducted in Phoenix, Arizona, by Moore Iacofano Goltsman and the Downtown Phoenix Partnership.
5. We used five footcandle, 3200-degree K warm white metal halide area lighting, with sharp cutoff distribution.