As far back as Gerrit Rietveld's Schröder House from 1924-25, with its movable walls and multipurpose rooms, architects and interior designers have attempted to redefine space and the concept of home to accommodate change. More than ever, flexibility, mobility, multifunctionalism and adaptability are the drivers behind the conceptual thinking that seeks to provide workable solutions to living in a world increasingly dominated by advancing technology.

It is somewhat ironic that South African-born architect Thom Craig, NZIA, Director of Modern Architecture Partners Ltd., Christchurch, New Zealand, looks for resolution to complex space and living issues in the habitation patterns of Johannesburg's Ndebele tribe. Craig believes that the ability of residential space to adapt and morph is critical to modern house design, and the superficial
simply that the money involved in building them would be better spent on improving the character of spaces that are used every day.

This view is shared by Tara Roscoe, Senior Designer at Conant Architects, New York, who believes that the entire concept of spatial boundaries is transitioning rapidly. “Previously accepted understandings of what ‘space’ is need to be completely reconsidered,” she says. “Through the use of modern technologies and advancing global connectivities, our basic construct of understanding space – distance, adjacencies, accessibility, boundaries between – is being challenged. Designers need to question their very own spatial rules of thumb and define new ways to know where their work starts and stops. I think these concepts are liberating, fascinating and terrifying.”

Challenging previously accepted common practices may be easier said than done, considering how much we have invested in the status quo. “Some people assume all living rooms need a sofa and all offices need desks,” Roscoe says. “It should always be second-guessed, and designers need to lead their clients through that process. It has become more difficult in the last 10 to 15 years to implement ideas that are out, tried-and-true formulas, they have to allow for that in the project process.”

Despite technological advances and the fact that some contemporary residential dwellings are challenging elementary concepts, people’s ideas of traditional rooms versus more flexible redefined living spaces are not changing a great deal in terms of spatial order and organization.

Architect Bill McKay, DINZ, Head of Interior Design at Unitec Institute of Technology, Auckland, New Zealand believes that the physical aspects of being human – the need to eat and sleep – will never change, but there are global challenges to the prescriptive notion that a home must have a kitchen, a living room, a dining room. All aspects of what traditionally formed a home now are being challenged, according to Craig. He proves that most recently in an Auckland, New Zealand home he designed as a windowless box, where the kitchen resides in a large walk-in cupboard, completely hidden, leaving living spaces unencumbered by the kitchen aesthetic.

In her book The Not So Big House: A Blueprint for the Way We Really Live, American architect Sarah Susanka also argues against the “bigger is better” formula and asks why we still are building homes with formal living rooms and dining rooms that may get used once or twice a year. She suggests that some people assume all living rooms need a sofa and all offices need desks,” Roscoe says. “It should always be second-guessed, and designers need to lead their clients through that process. It has become more difficult in the last 10 to 15 years to implement ideas that are out, tried-and-true formulas, they have to allow for that in the project process.”

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Architect Bill McKay, DINZ, Head of Interior Design at Unitec Institute of Technology, Auckland, New Zealand, says that flexible spaces help people move away from the modern Western obsession with functionality. He encourages designers to think of spaces depending on the appropriateness of mood or climate, as in the Japanese notion of defining space aesthetically, aiming to instill mood, a certain state of mind, rather than focusing on function.

For example, think about sliding, rotating, moving walls that allow spaces to sprout as guest sleeping areas or privacy through the use of headphones, or talking into corners, or by increasing cell phone use, which entailed them to be more mobile. I think there is enormous potential for designers to explore that aspect of our natural adaptive ability.”

ROOMS OF THE FUTURE, NEEDS OF TODAY

Consider the possibilities of Smart Carpet. The Wool Interiors Division of New Zealand’s Canesis Network Ltd. now is marketing new technology internationally, whereby electro-luminescent textiles are integrated into the structure of plain carpets to create patterns that are activated by body weight or sound frequencies — colors and patterns change, and even commercial logos appear as people walk on the carpet. And what about the high-tech advances that allow an owner to switch on home lights, heating systems, garden irrigation systems and security systems from a laptop computer half a world away?

These are modern realities that go beyond the standard trotting out of stylistic solutions to domestic environments. The home office, the home theater, Internet rooms, reduced kitchens for people who invariably eat out, libraries with no books, where information is stored on computer files — they’re all here already.

“When you shake up preconceived notions in homes or offices, people will adapt through pattern and habit,” says Tara Roscoe, Senior Designer at Conant Architects, New York. “They find ways to recreate qualities like privacy, but they often do it in a new way. There is a good example in the workplace. With the advent of workstations and lower cubicles and partition walls in offices, people adopted and sought privacy through the use of headphones, or talking into corners, or by increasing cell phone use, which entailed them to be more mobile. I think there is enormous potential for designers to explore that aspect of our natural adaptive ability.”

Above: The interior of the Loftcube can be customized to the resident’s space needs. Occupants can slide movable walls to partition living, sleeping, kitchen and bathroom areas, providing privacy or allowing interaction.
OUTSIDE THE CUBE

Early conceptual shifts in office design – the Centraal Beheer office building designed by Herman Hertzberger in Apeldoorn, The Netherlands, in the 1970s, British architect Francis Duffy’s ideas of office as cell, den, hive, and more recently, the Mediatheque building in Sendai, Japan, designed by revolutionary “space thinker” and Japanese architect Toyo Ito – have had far-reaching impacts on modern commercial spaces and spatial design at large.

“They were all important for their time, and more interior designers need to know about them, what they are and what they stand for,” Roscoe says. She is adamant that interior designers would do well to embrace more of the analysis and theoretical thinking that has long characterized the architectural profession.

“Meeting a client’s needs in any area is of course important, but always delivering only what they ask for trivializes the work of interior designers,” she says. “We need to challenge clients more, pushing ourselves to find new solutions.”

With the advent of smart architecture, desks or walls can become computers or television screens, walls can be illuminated or changed in color at the push of a button, cooking and security facilities can be programmed to operate from off-site computers. Roscoe is unsure that people are sufficiently aware of or prepared for how these advances will impact the spatial order of offices and homes. But she is certain designers must be much more familiar with “what’s out there.” Otherwise, they simply will be chasing the software developers, who currently lead things.

The advent of technology reinforces the notion that work happens anywhere and that space must be conducive to different methods of working, according to architect Anne Cunningham, Principal of NBBJ Seattle. The differential between office and home is becoming seamless, something that surely will have a ripple effect into how people approach their future homes.

Many companies now provide their staff with on-the-job bars, plasma screens for watching sports, recreational rooms, office cafes, meditation or “scream” rooms for thought and relaxation. “But this can be insidious, creating an expectation that you need not and should not have to leave the building,” McKay says.

FAR OUT

The book and exhibition “Living in Motion: Design and Architecture for Flexible Dwelling” presents the work of contemporary designers and architects who have sought to adapt domestic environments within new parameters, such as Japan’s Shigeru Ban’s “Naked House” (2000), with room units that can be wheeled outside, and Steven Holl’s “Pikokusa Apartments” (1992), whose interior layout can be completely transformed by means of pivoting and folding partition walls. Whether by means of flexible, multifunction floor plans, multifunctional furniture or by carrying a portable “honeycomb” on one’s body, it seems humans are investigating a comprehensive array of living and working possibilities.

The Loftcube Project is a case in point. Designed by award-winning German designer Werner Asslinger of Studio Asslinger, Berlin, this elegant capsule “plugs in” above the city, making sensible use of high-rise rooftops. It seems a blindingly obvious solution to both crowded cities and high real estate costs, not to mention a stylish, functional and sensibly minimal home that is both coopted into place. The interior of the cube is subdivided by sliding panels on tracks, which create the basic forms of the living space, onto which all portable furniture modules affix themselves.

Important clues to the future also lie in the work of internationally regarded architect Sean Godsell, RAIA, of Melbourne, Australia, who was listed by the United Kingdom’s Wallpaper Magazine in 2002 as one of the 10 people destined to change the way we live. His Architecture for Humanity award-winning design for the “Future Shack” utilizes recycled shipping containers to provide temporary emergency or relief housing, yet its simplified interior elements and foldout furniture provide superb examples for the reassessment of permanent dwellings.