

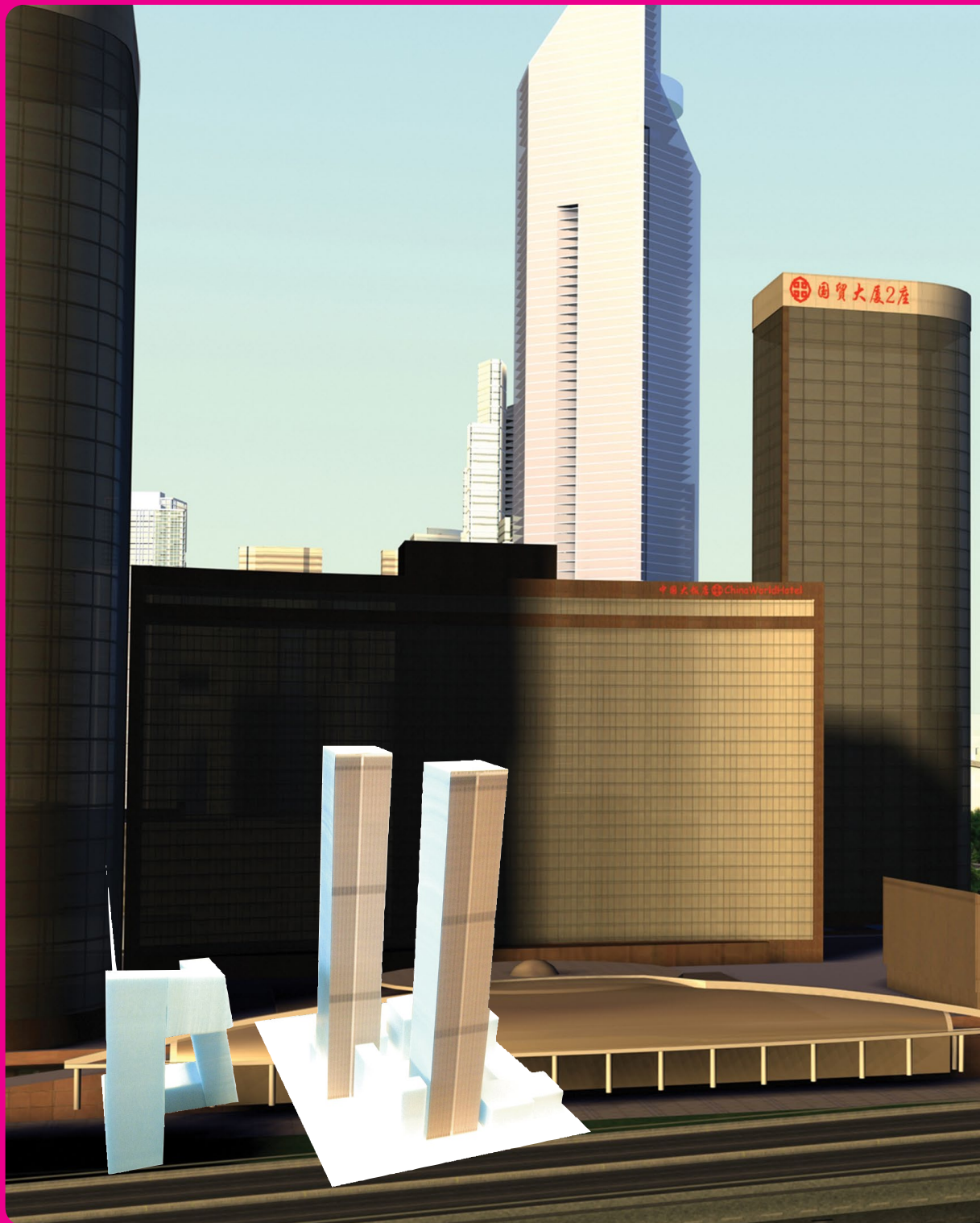


beijing 39°55'N 116°26'E

# The Enemy

BY REM KOOLHAAS

...Suits, with mustaches, receding hairlines, and suspect waistlines, huddled in a collective pose of preemptive servility, architects from a city that was put on the map by a single outrageous building when it was nothing-grown up preemies of the Bilbao effect- they peddle their soulless wares with shameless calculation- Anglo termites of pragmatism- or tell reassuring fairy tales like “the Skyscraper as a Citizen,” as if to 4 year olds....



# CCTV

## Saved by a Fortune Cookie

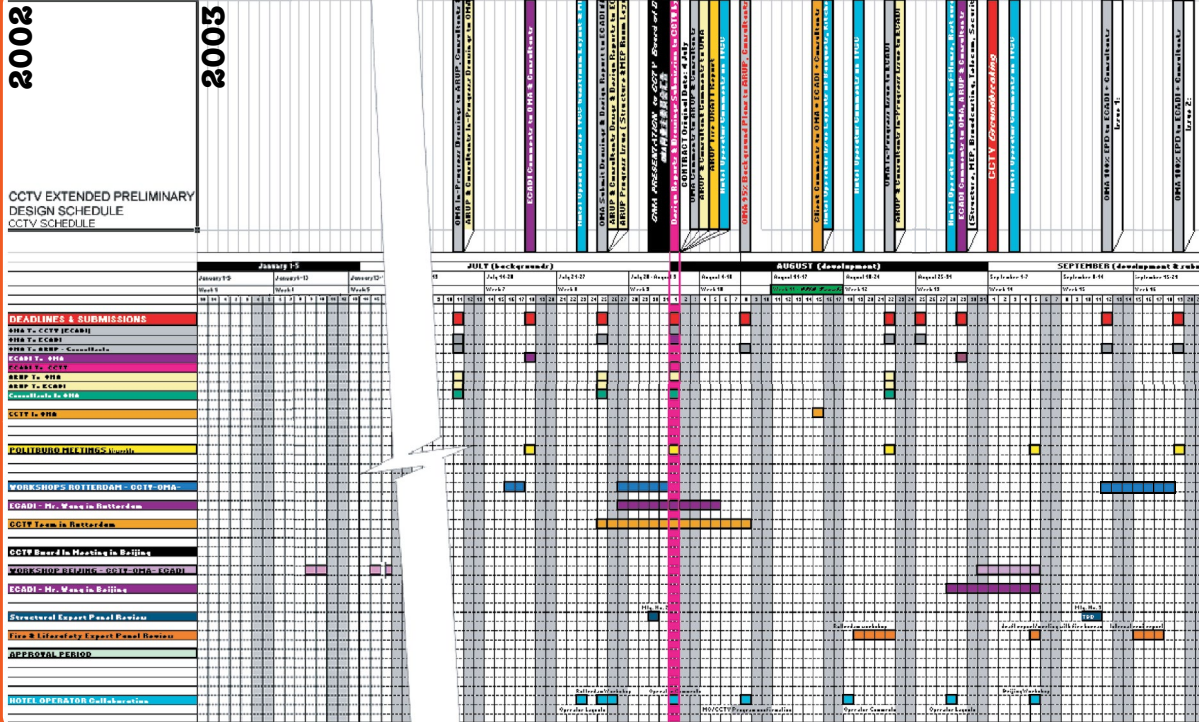
Early 2002 –We received two invitations, one to apply to consider what should happen at Ground Zero, the other for the headquarters of China Central Television in Beijing. We discussed the choice over a Chinese meal. The life of the architect is so fraught with uncertainty and dilemmas that any clarification of the future, including astrology, is disproportionately welcome. My fortune cookie read, “Stunningly Omnipresent Masters make minced meat of memory.”>



“metaforms” that would express the new values of future communities.



Revised July 28, 2003, Version 03



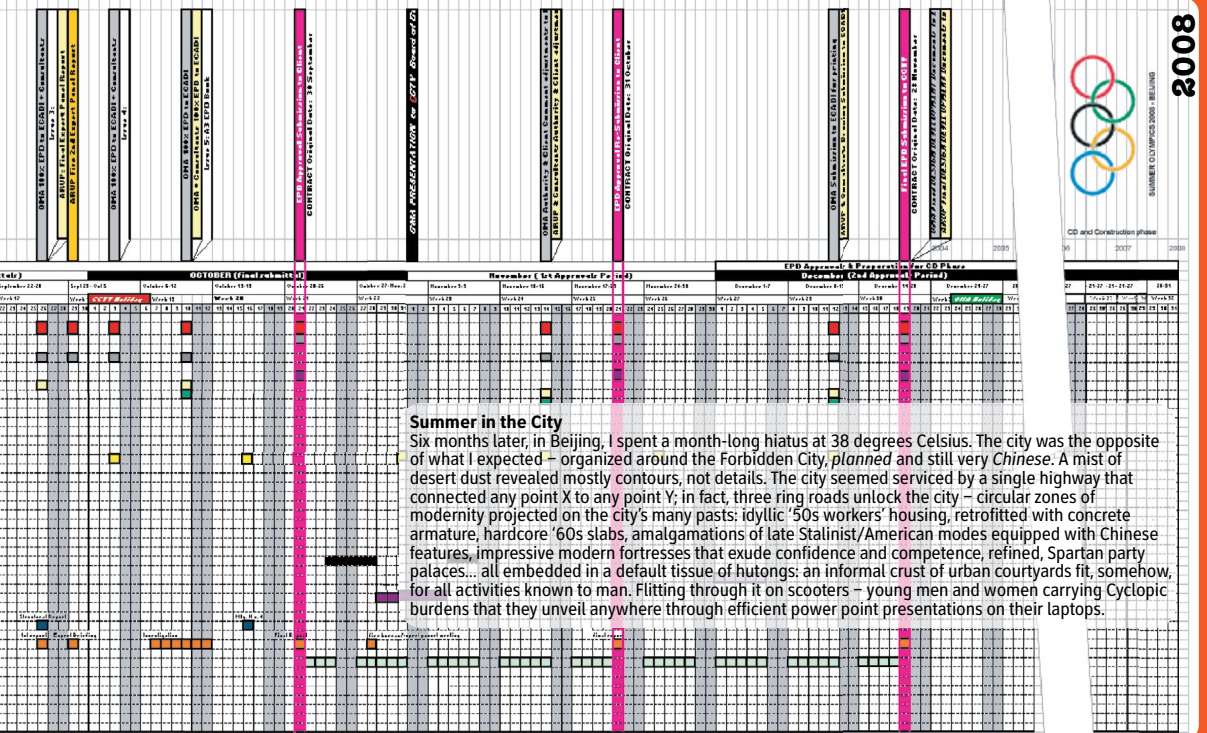


中央电视台新台址建设工程  
CCTV New Site Construction & Development Program

设计合同签字仪式



To a layman, we were told; the plaster model that had apparently seduced the jury would seem just a sculpture. In four days – in a computerized sweatshop, with ample child labor, by half-naked workers, partly in alleyways – we made a new one, transparent and modern, that was apparently put in a van that would visit leaders at their holiday resorts – a journey that culminated somehow in a contract signing at the state guest house in December, for a building to be completed before the Beijing Olympics (2008).



Summer in the City

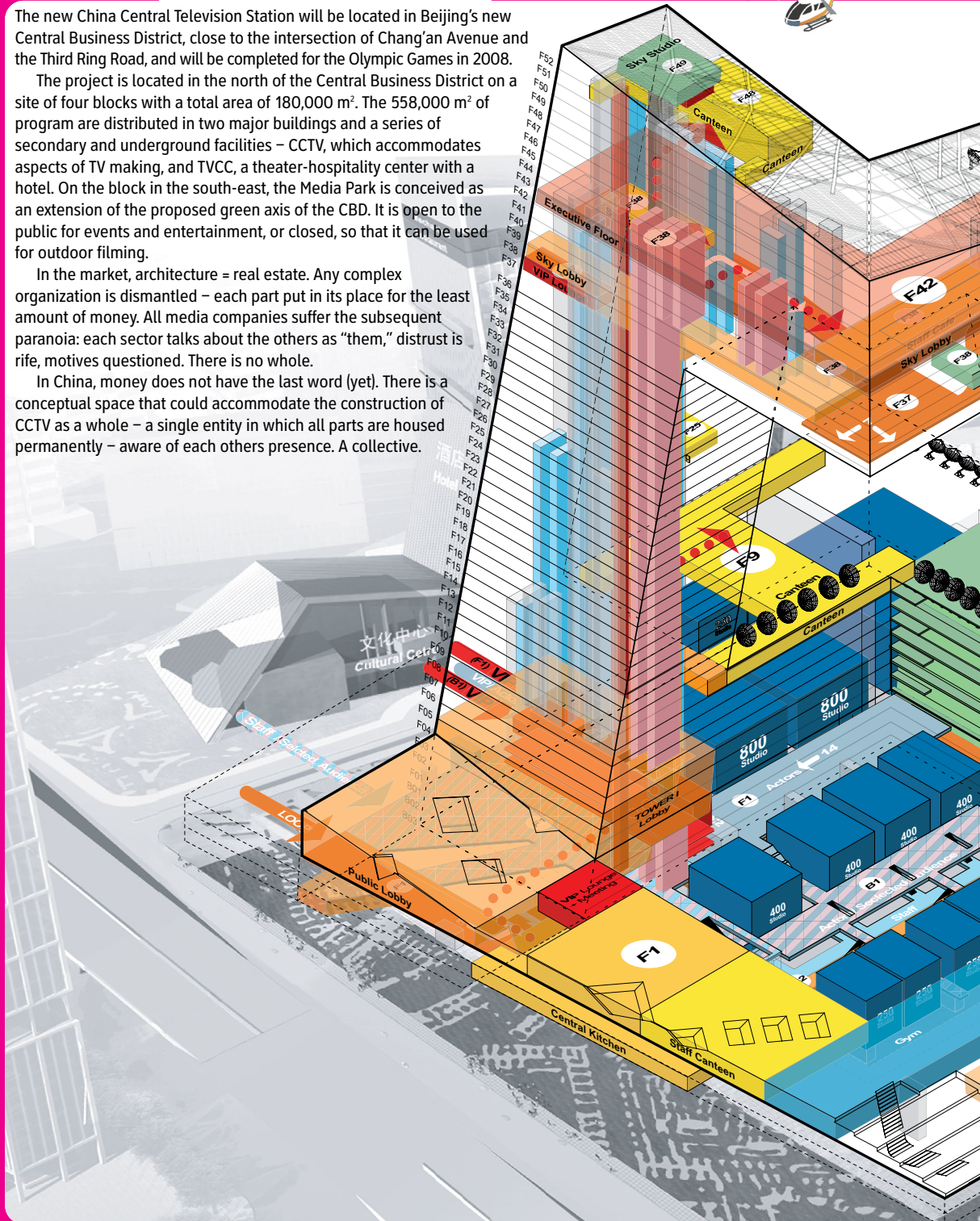
Six months later, in Beijing, I spent a month-long hiatus at 38 degrees Celsius. The city was the opposite of what I expected – organized around the Forbidden City, *planned* and still very *Chinese*. A mist of desert dust revealed mostly contours, not details. The city seemed serviced by a single highway that connected any point X to any point Y; in fact, three ring roads unlock the city – circular zones of modernity projected on the city's many pasts: idyllic '50s workers' housing, retrofitted with concrete armature, hardcore '60s slabs, amalgamations of late Stalinist/American modes equipped with Chinese features, impressive modern fortresses that exude confidence and competence, refined, Spartan party palaces... all embedded in a default tissue of hutongs: an informal crust of urban courtyards fit, somehow, for all activities known to man. Flitting through it on scooters – young men and women carrying Cyclopic burdens that they unveil anywhere through efficient power point presentations on their laptops.

The new China Central Television Station will be located in Beijing's new Central Business District, close to the intersection of Chang'an Avenue and the Third Ring Road, and will be completed for the Olympic Games in 2008.

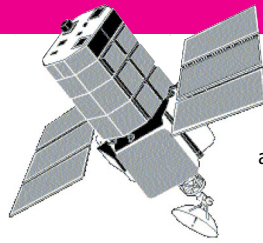
The project is located in the north of the Central Business District on a site of four blocks with a total area of 180,000 m<sup>2</sup>. The 558,000 m<sup>2</sup> of program are distributed in two major buildings and a series of secondary and underground facilities – CCTV, which accommodates aspects of TV making, and TVCC, a theater-hospitality center with a hotel. On the block in the south-east, the Media Park is conceived as an extension of the proposed green axis of the CBD. It is open to the public for events and entertainment, or closed, so that it can be used for outdoor filming.

In the market, architecture = real estate. Any complex organization is dismantled – each part put in its place for the least amount of money. All media companies suffer the subsequent paranoia: each sector talks about the others as “them,” distrust is rife, motives questioned. There is no whole.

In China, money does not have the last word (yet). There is a conceptual space that could accommodate the construction of CCTV as a whole – a single entity in which all parts are housed permanently – aware of each others presence. A collective.



# e Cookie

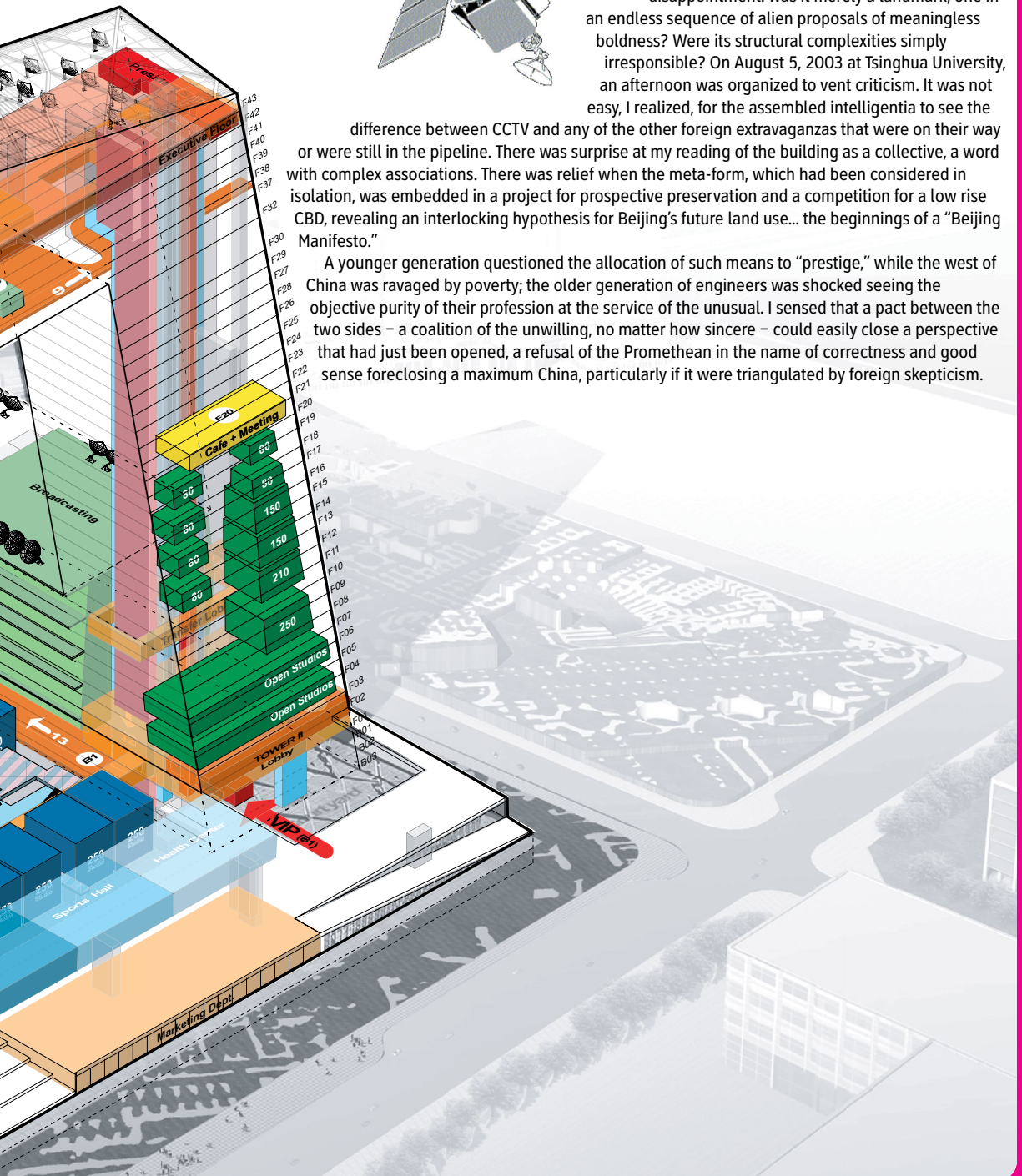


## Beijing Manifesto

After the announcement, apart from excitement, our project created two kinds of reserve, if not disappointment: was it merely a landmark, one in an endless sequence of alien proposals of meaningless boldness? Were its structural complexities simply irresponsible? On August 5, 2003 at Tsinghua University, an afternoon was organized to vent criticism. It was not easy, I realized, for the assembled intelligentsia to see the

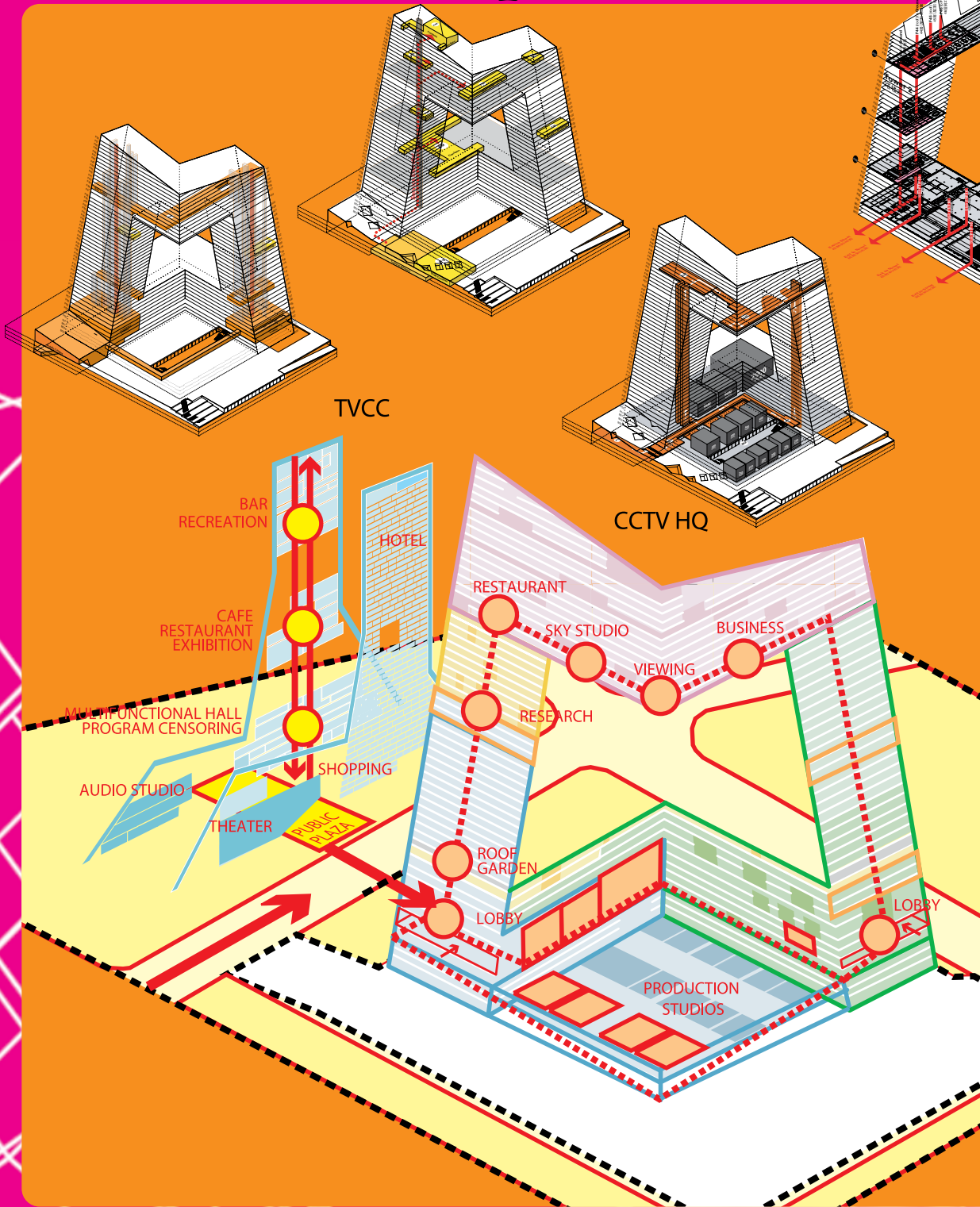
difference between CCTV and any of the other foreign extravaganzas that were on their way or were still in the pipeline. There was surprise at my reading of the building as a collective, a word with complex associations. There was relief when the meta-form, which had been considered in isolation, was embedded in a project for prospective preservation and a competition for a low rise CBD, revealing an interlocking hypothesis for Beijing's future land use... the beginnings of a "Beijing Manifesto."

A younger generation questioned the allocation of such means to "prestige," while the west of China was ravaged by poverty; the older generation of engineers was shocked seeing the objective purity of their profession at the service of the unusual. I sensed that a pact between the two sides – a coalition of the unwilling, no matter how sincere – could easily close a perspective that had just been opened, a refusal of the Promethean in the name of correctness and good sense foreclosing a maximum China, particularly if it were triangulated by foreign skepticism.



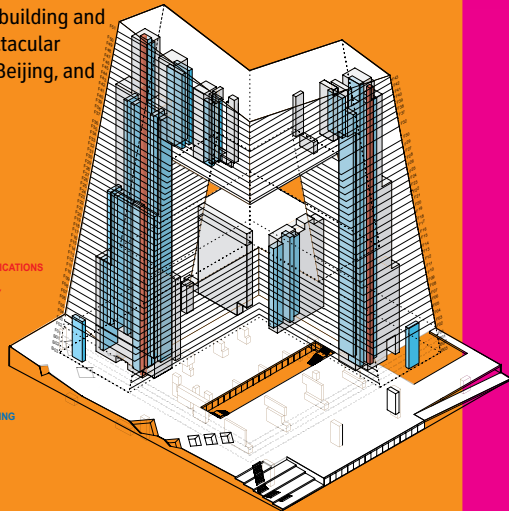
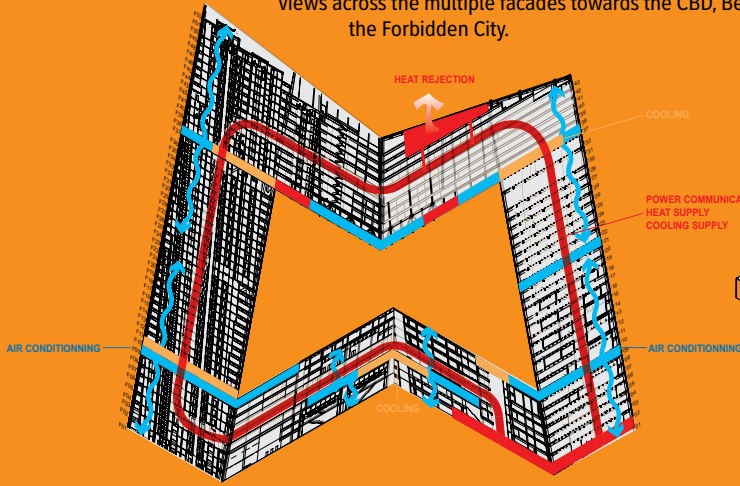
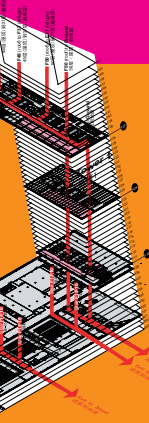


# EAST Loop



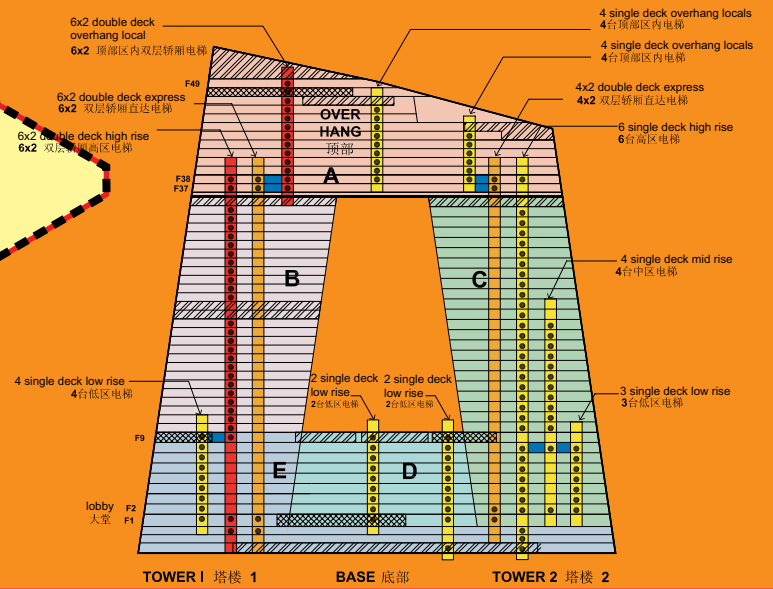
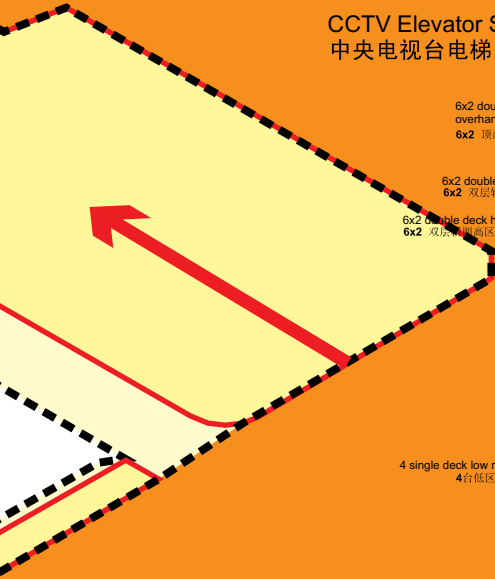
CCTV combines administration and offices, news and broadcasting, program production and services – the entire process of TV-making – in a loop of interconnected activities. Two towers rise from a common production platform that is partly underground. Each has a different character: one is dedicated to broadcasting, the second to services, research, and education; they join at the top to create a cantilevered penthouse for the management. A new icon is formed... not the predictable 2-dimensional tower “soaring” skyward, but a truly 3-dimensional experience, a canopy that symbolically embraces the entire population... an instant icon that proclaims a new phase in Chinese confidence. The consolidation of the TV program in a single building allows each worker to be permanently aware of the nature of the work of his co-workers; a chain of interdependence promotes solidarity rather than isolation, collaboration instead of opposition. The building itself contributes to the coherence of the organization.

CCTV is a secured building for staff and technology. Public visitors will be admitted to the “loop,” a dedicated path circulating through the building and connecting to all elements of the program and offering spectacular views across the multiple facades towards the CBD, Beijing, and the Forbidden City.



**CCTV Elevator System**  
中央电视台电梯系统

- SINGLE DECK  
单层轿厢
- DOUBLE DECK LOCAL  
区域双层轿厢
- TRANSFER LOBBY  
转移大堂
- DOUBLE DECK EXPRESS  
直达双层轿厢



TOWER 1 塔楼 1      BASE 底部      TOWER 2 塔楼 2

## Dissecting the Iconic Exosymbiont: The CCTV Headquarters, Beijing, as Built Organism

By William B. Millard

### Gross anatomy: defiance of disaster

The procedure of characterizing the CCTV begins with gross or macro-scale observation before advancing to dissection. The apparent simplicity of the structure, combining symmetries and asymmetries, suggests that a substantial amount of this initial level of observation will be useful.

To the naked eye, the entity consists of six approximately rectangular or rhomboidal blocks (two at the base, two vertical, two forming an overhang) arranged in L-shaped pairs to suggest a superimposition of geometric forms. The CCTV-structure is a single irregular rhomboid hollowed out at the center, a cornered loop. When viewed from the northeast and above, it displays a rough radial symmetry, while containing no actual circles or arcs. It is none of the common geometric forms, while gesturing toward many of them; it appears, like so many ostensibly haphazard natural phenomena, to mock the simplistic precision of ideal forms by approximating them. Composed entirely of straight lines, it nonetheless generates sinuous motion. Right angles exist only in its horizontal dimension, and externally only in the plane where it touches the Earth; above that plane, deviations of a few degrees from plumb imply a relativistic warping of space.

The CCTV-body is both dense (horizontal) and bricklike when viewed from afar) and ethereal, with pervasive plate glass, substantial exposure of internal features to the external view, and panoramic views from every level within. Its macrostructure is tubular and ouroboric. Moreover, its salient feature is a visually intuitive instability. Its cantilevered overhang section casts an impressive and ominous shadow; this weighty component appears poised to pitch the entire structure over onto its southwestern point at the slightest provocation by wind, seismic force, or

any other form of shock. Flagrantly centerless, the CCTV implies a center of gravity that bears no reassuring relation to its center of mass.

That a structure should pose such a basic problem for itself (if not an apocalyptic collapse, then a steady entropic retreat into structural fatigue and eventual insupportability) and proceed elegantly to solve it – defying not only common gravity but a set of expectations so commonly held that they are as transparent as air to most observers – marks the CCTV as an exceptionally perceptive and adaptive organism. To stave off the tipping-point topple that overimaginative eyes cannot resist projecting, the CCTV-system offers a strategy familiar to many biologists. Immediately beneath the CCTV's deceptive facade lies a visible rigid exoskeleton, an adaptation borrowed from the arthropod phylum, that strengthens structural resistance to either the acute or the chronic form of collapse, dramatic shear or gradual Pisan decline.

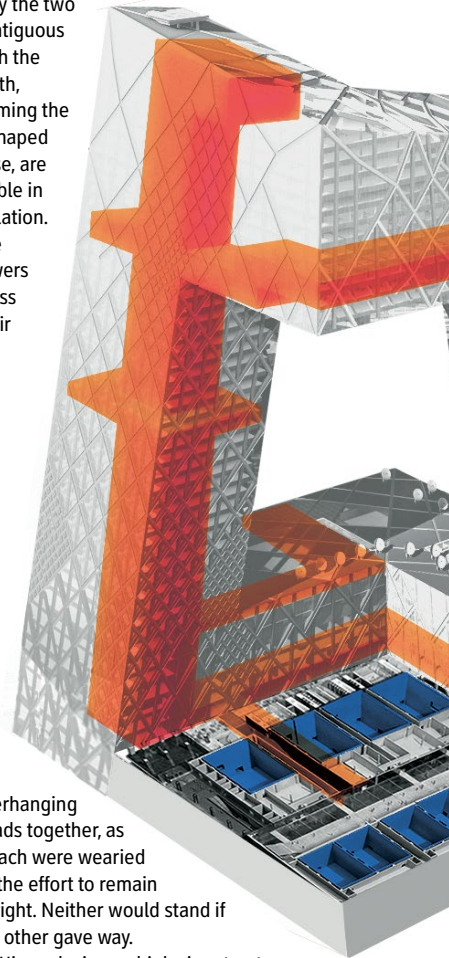
Due to its unusual form, certain areas of the CCTV's surface (generally joints between major block units, and particularly the overhang segment compressed by the weight of the inwardly leaning towers) appear to bear dangerously disproportionate loads, while others remain relatively spared. The adjustment that apparently evolved in response was to discard uniform density of diagonal members and embrace irregularity. The CCTV's visible and tangible framework in its final form features a varying scale of density in the arrangement of angular struts, so that more bracing appears in areas subject to greater stress. This "Adapted Pattern" guarantees that the *prima facie* collapsibility of the entire organism remains an optical illusion, a gesture toward impracticality on the part of a structure that is both unconventional and surprisingly practical.

The CCTV's gross shape is the physical expression of a set of interlocking ideas (and, broadly, of the idea of interlocking): counterpoise, complementarity, reciprocity. Its

rhetorical trope is chiasmus, the reversal of an initial form in the next iteration by an inversion of that form. Weight distribution appears based on a dynamic interdependence: of the six component blocks, four can maintain structural integrity only in the presence of all four; only the two contiguous with the Earth, forming the L-shaped base, are stable in isolation. The towers press their

overhanging heads together, as if each were wearied by the effort to remain upright. Neither would stand if the other gave way.

Hierarchy in any high-rise structure or large organization is unavoidable, yet the CCTV-loop levels this perception and bends hierarchy into reciprocity: everything that rises must quite literally converge. The skyscraper genre's relentless vertical thrust becomes an archaism, an icon of one-dimensionality, a plaintive assertion that only one direction, Up, ultimately matters. The CCTV brings other dimensions into view and requires the horizontal and the vertical to negotiate a treaty of mutual



recognition and interdependence.

### **Surface inspection and histology: texture, mutability, attraction**

After studying the gross appearance, one proceeds with invasive investigations: incision, removal of epithelial layers, microscopic tissue examination, and correlation of structures with functions. The CCTV's epithelium has assumed a form resembling that of

certain aquatic vertebrates whose skin contains little pigmentation and reveals more about internal organs than would be possible above sea level. Apparently the atmosphere of Beijing imposes no need to armor the internal processes of Chinese Central Television against either ultraviolet light or visual inquiry.

Translucent from some angles and in certain forms of light, opaque at others, and bearing a combination of permanent and temporary images and projections, the CCTV's facade combines protective and communicative functions in ways not customarily found in comparable built organisms. The surface is a complex laminate of tempered glass and finely woven metal; light passes through both glass and mesh to reveal the exoskeleton on which the laminated panels are mounted, but the texture is only partially transparent. The icons can be internally lit, making the surface function as body armor, weatherproofing, and thermal insulation.

Skin has obvious and nonobvious functions in the animal kingdom: thermal regulation, conveyance of moisture, containment of internal organs, enhancement of sexual attraction. In the built-organism kingdom, skin has analogues of most of these properties. A glass skin cannot transmit moisture but readily conveys light, heat, and

information. A laminated glass-mesh skin that admits evanescent images from internal and external sources tells both its endosymbionts and its external observers that it can be controlled, that it is not a monolith, that it will adjust to their interests, that it is friendly.

### **Internal exploration: layering, flow, cascade**

Investigating further beneath the glass and fine mesh, probing past the coarser mesh of the visible framework, one finds the inescapably regular grid of functional floors and vertical supports for the external panels. The looping structure around an absent center creates patterns that organize the behavior of individual human occupants as well as the collective functions of the CCTV-community. Some of the adaptations sustaining these patterns have been observed in only small segments of the built-organism kingdom, or in the CCTV-species alone.

The base-block and subterranean levels, the two vertical tower-blocks, and the conjoined overhanging section form organic zones of related activity that complicate, though they do not invert or deconstruct, the hierarchies inherent in any large institution. In the case of Chinese Central Television, the major functions of a national-scale media firm (news reporting, broadcasting, program production, new-media production, research, training, auxiliary services, and management), in most other cases distributed across disparate and sometimes physically separated structures, can be integrated within the CCTV-organism and connected by a common infrastructure – the combined circulatory, ventilatory, internal transportation, alimentary, and communicative organs of the overall system. Individuals can traverse the entire structure, and conceivably observe every facet of news production, decision-making, and dissemination, in a single long walk. Executives high in the overhang operate with the constant visible reminder that they are supported by, and are literally dependent on, layer upon layer of laborers.

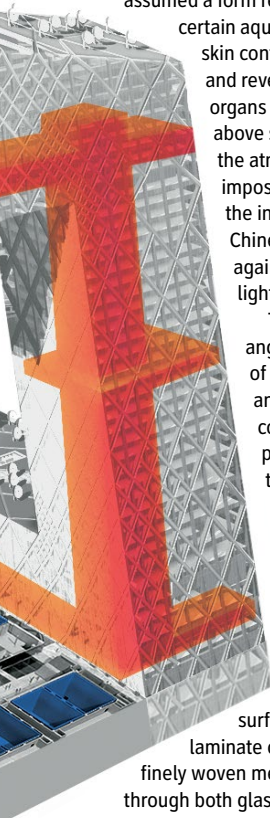
The final penetration of an observer's

instruments finds a core of practical infrastructure. The CCTV's services loop has a serial rather than parallel structure, but multiple mechanical rooms are regularly distributed, and modules of each system are detachable and replaceable, allowing critical heating, cooling, ventilation, and plumbing functions to continue uninterrupted when components are under repair, blocking cascading system failures. This design resembles the modularity and redundancy of "primitive" organisms adapted for difficult environments such as the subterranean (segmented worms) or the aquatic (coral and other marine colony-organisms).

In a structure where over 50 percent of the floors (stories 11 through 38, or 28 of the total of 55) are discontinuous pairs, efficient internal transportation is a challenge. The elevator system has evolved to solve this problem, not only through the conventional strategies of combining local and express elevator banks, dedicating certain spaces to transfer lobbies, and limiting the vertical span of most elevators, but also through double-deck elevator design, a relatively recent adaptation among built organisms. Making fewer stops on alternate floors during peak use periods, the double-deck cars help conserve both usable floor space and human transportation time.

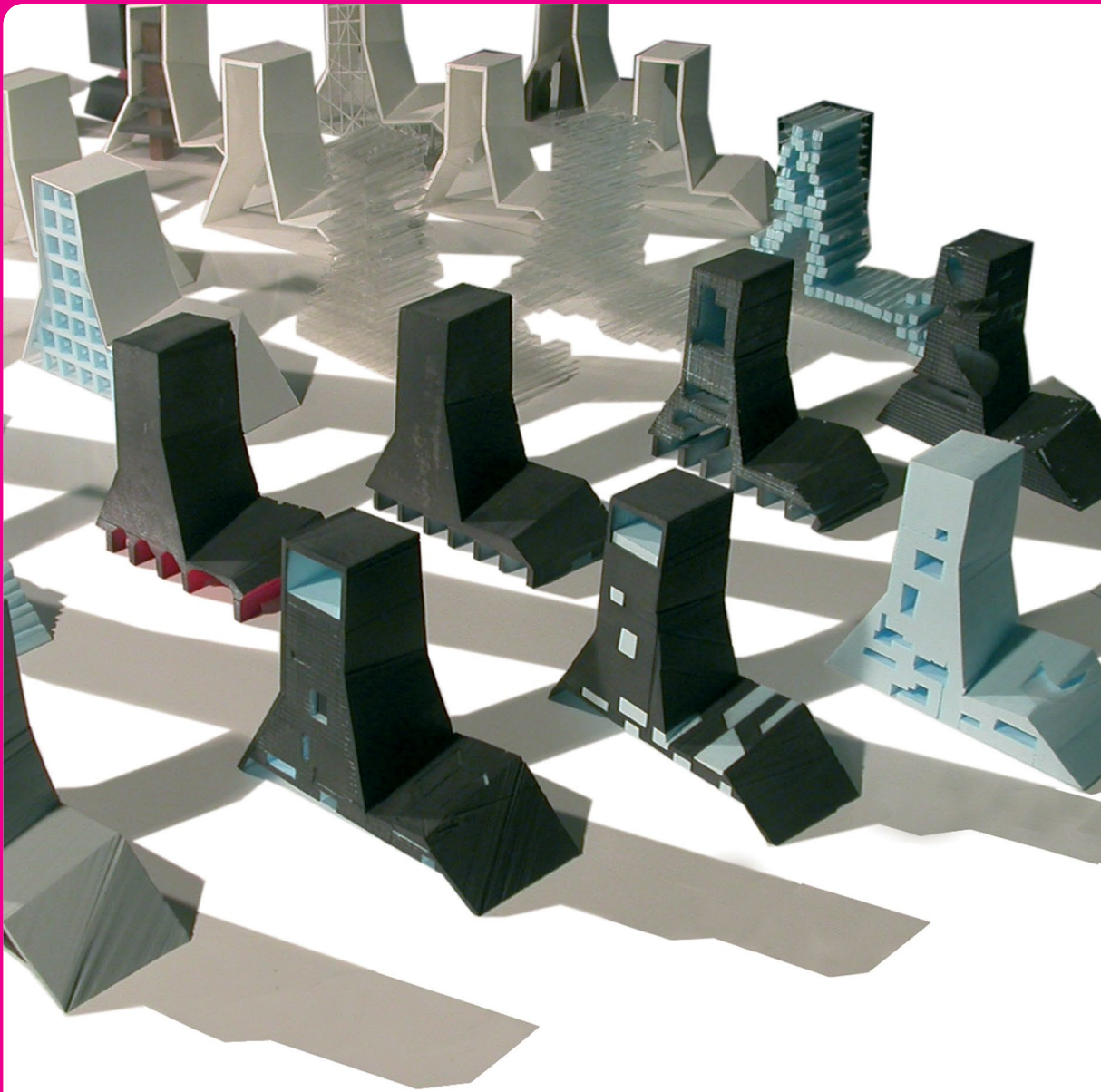
### **Inferences from multimodal observations**

The CCTV-entity simultaneously calls for definitions and resists them. Its materials appear inorganic, yet it displays characteristics of life, chiefly forms of change and changes of form. It has clearly evolved; it shows traces of adaptation in response to external conditions and pressures. It performs myriad functions, responds to its environment, changes that environment, and processes the information resulting from that dialogue. It appears to be still evolving as it grows; its features reflect processes improvised in response to experience, not theories imposed *a priori*. It appears capable of defending itself. We will know whether it is alive only if it eventually reproduces. ■



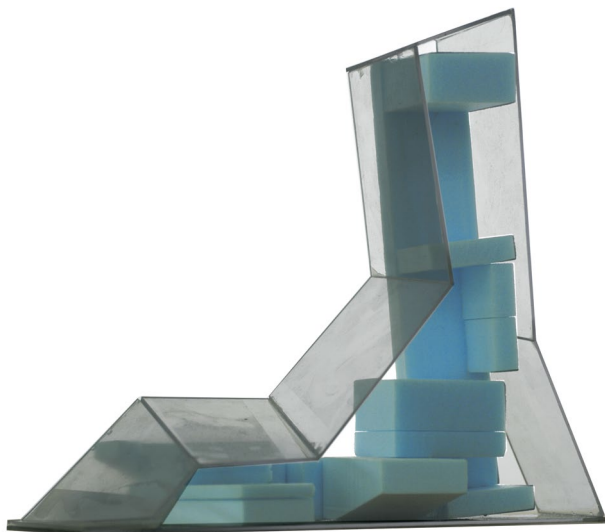
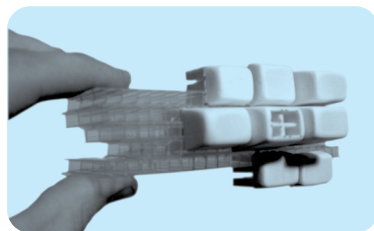
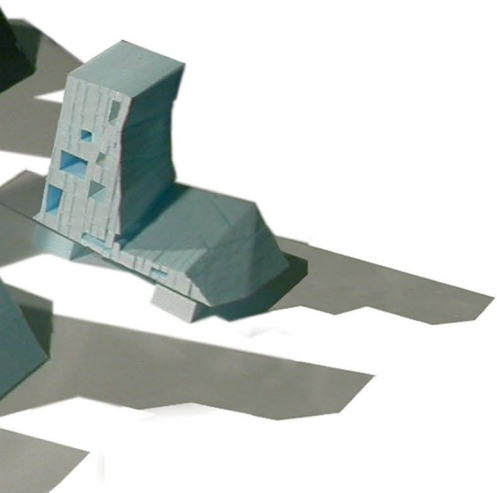
**EAST**

# The weaker building



## TVCC

The Television Cultural Center (TVCC) is an open, inviting structure. It accommodates visitors and guests, and will be freely accessible to the public. On the ground floor, two different lobbies provide access to the 1500-seat theater and a large ballroom. The hotel guests enter at a dedicated drop-off from the east of the building and ascend to the second floor, housing the check-in as well as restaurants, lounges, and conference rooms. The hotel rooms occupy both sides of the tower, forming a spectacular atrium above the landscape of public facilities.







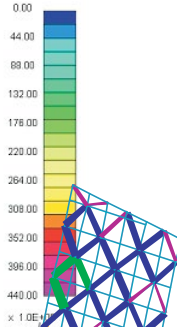
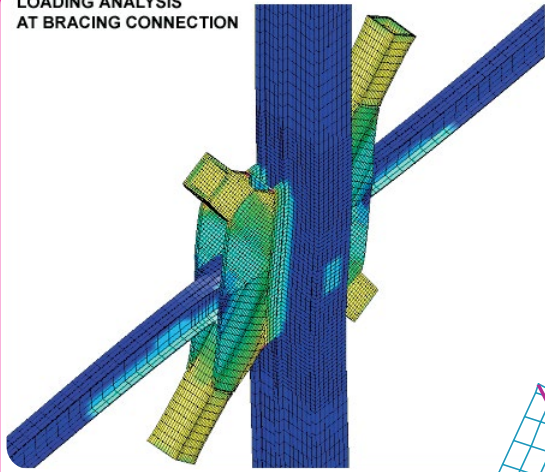
has no scene, makes no demands, offers no distractions—a laboratory of indifference....



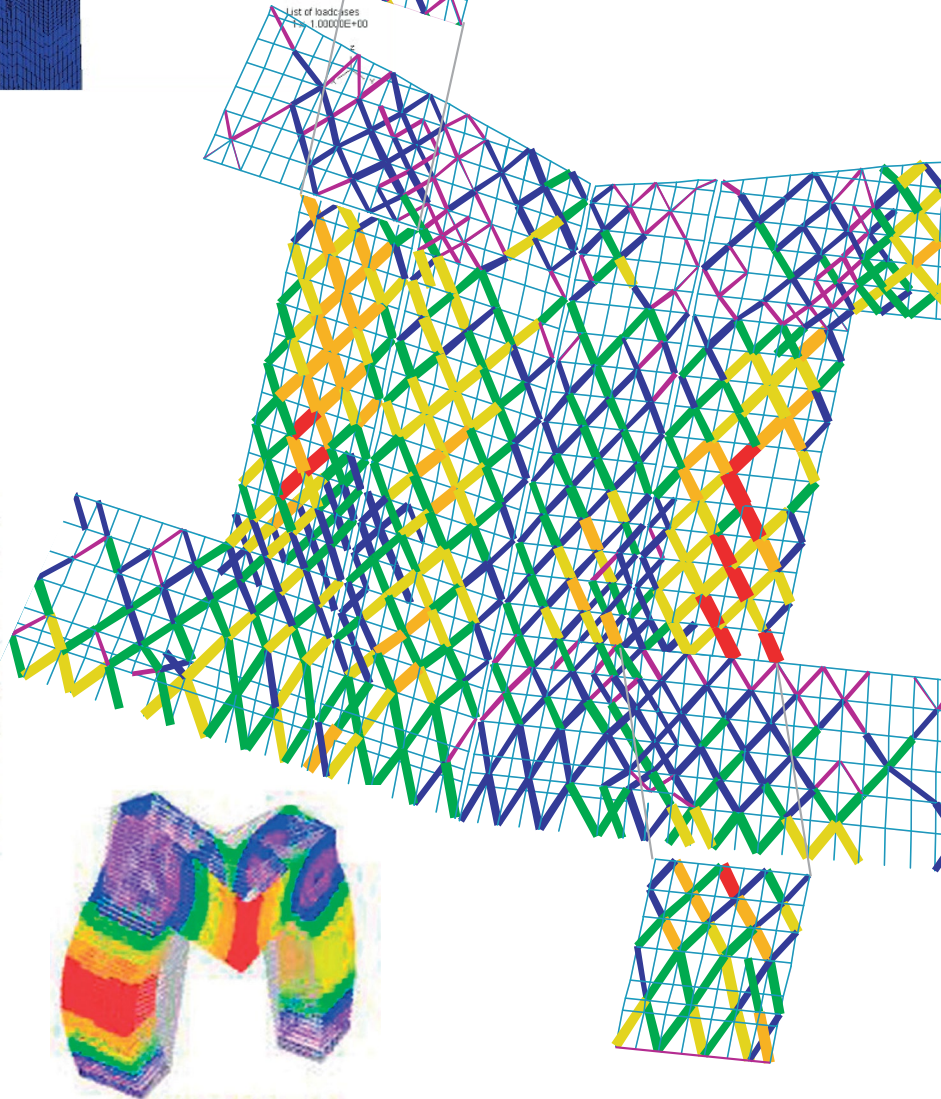
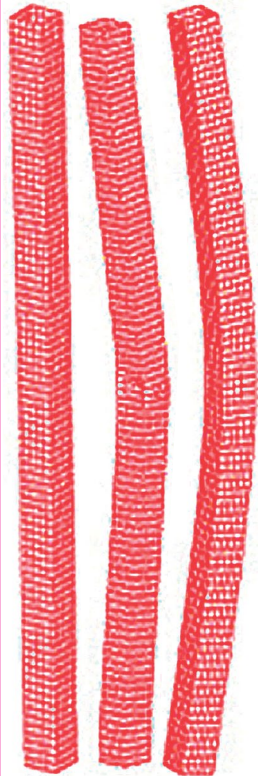
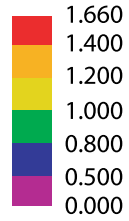




## LOADING ANALYSIS AT BRACING CONNECTION

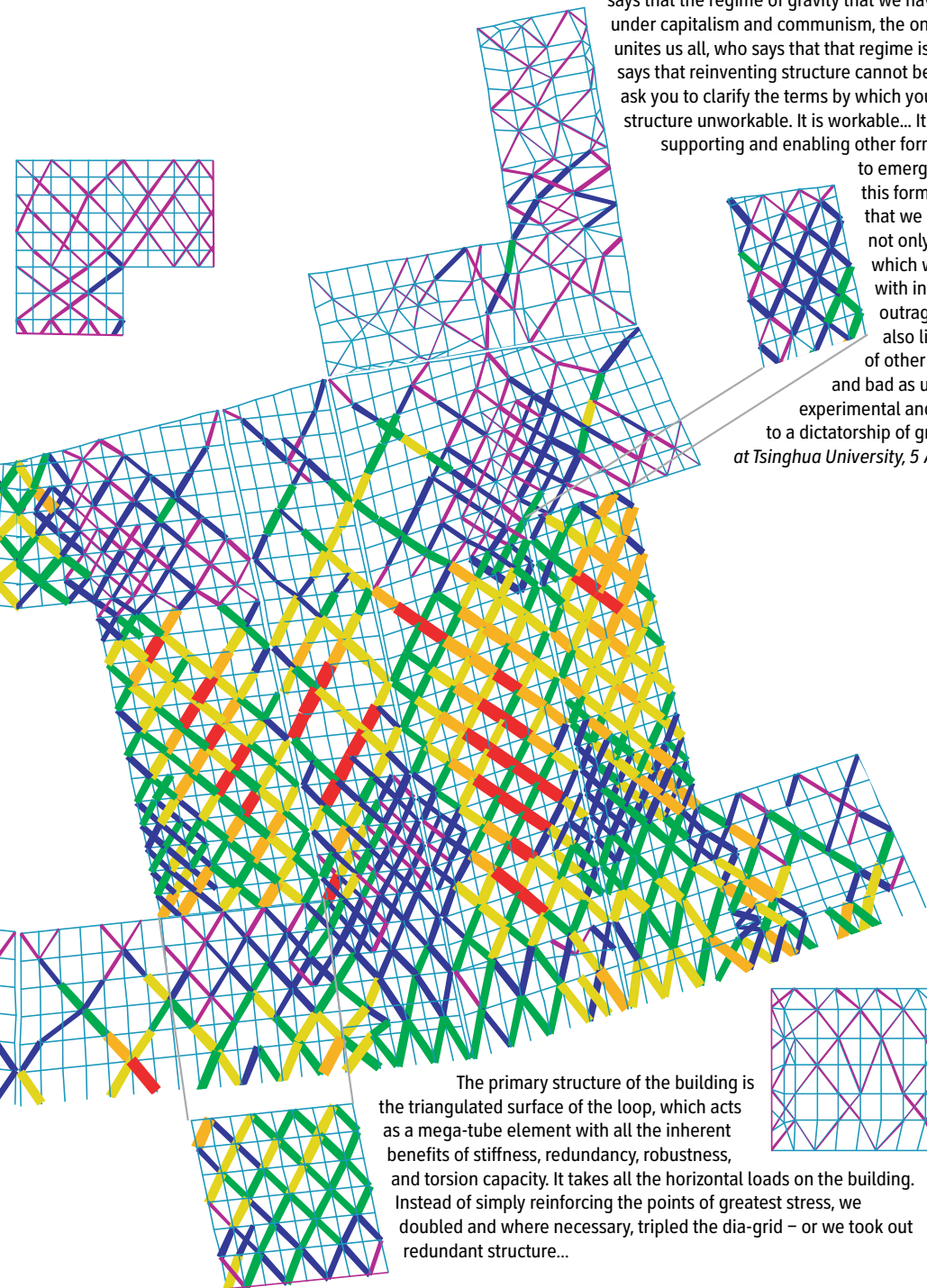


## DEM & CAPACITY RATIOS



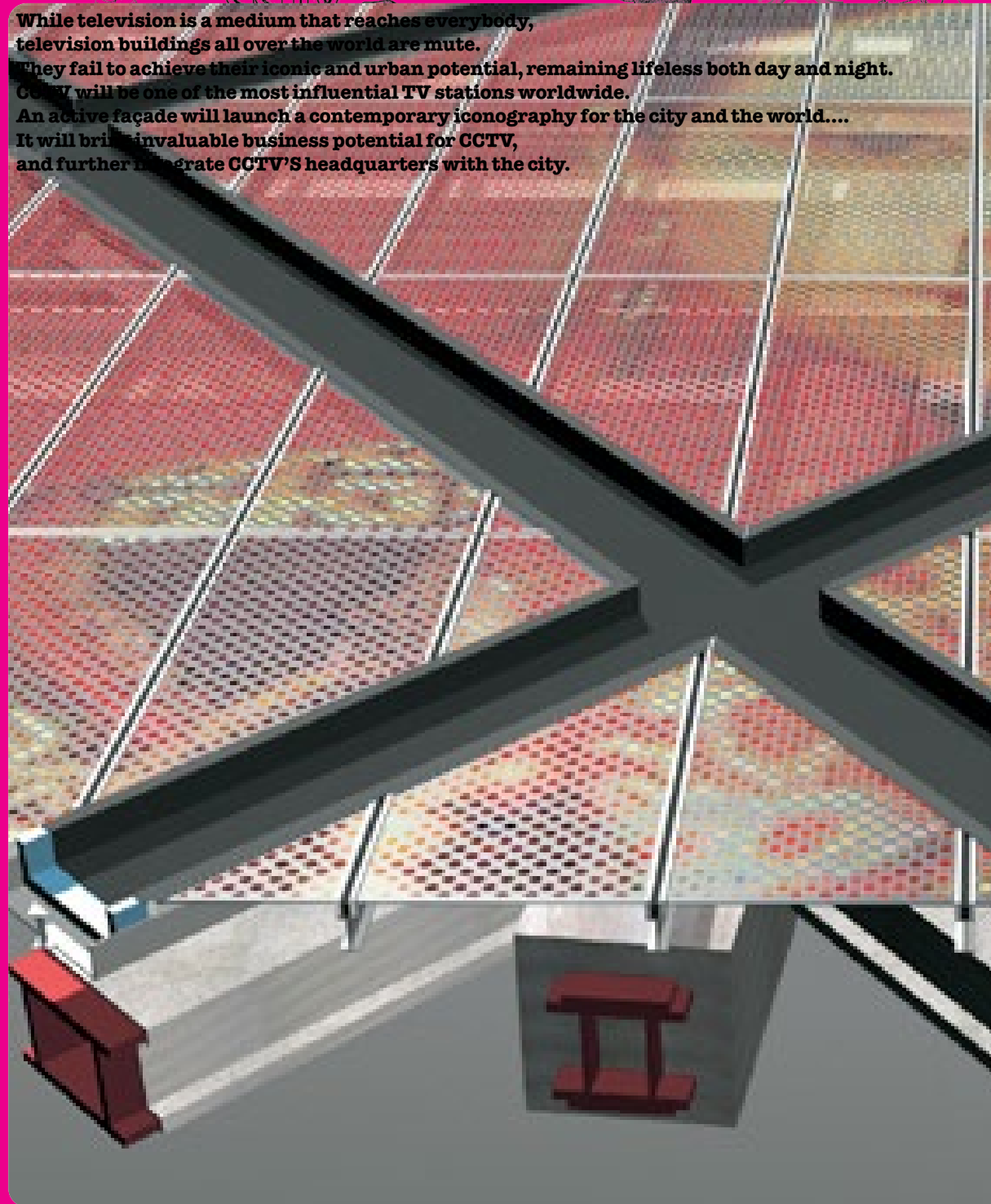
“Who says that structure should not be re-invented? Who says that the regime of gravity that we have suffered from under capitalism and communism, the one regime that unites us all, who says that that regime is sacrosanct, who says that reinventing structure cannot be creative, I simply ask you to clarify the terms by which you name this structure unworkable. It is workable... It is simply a way of supporting and enabling other forms of architecture

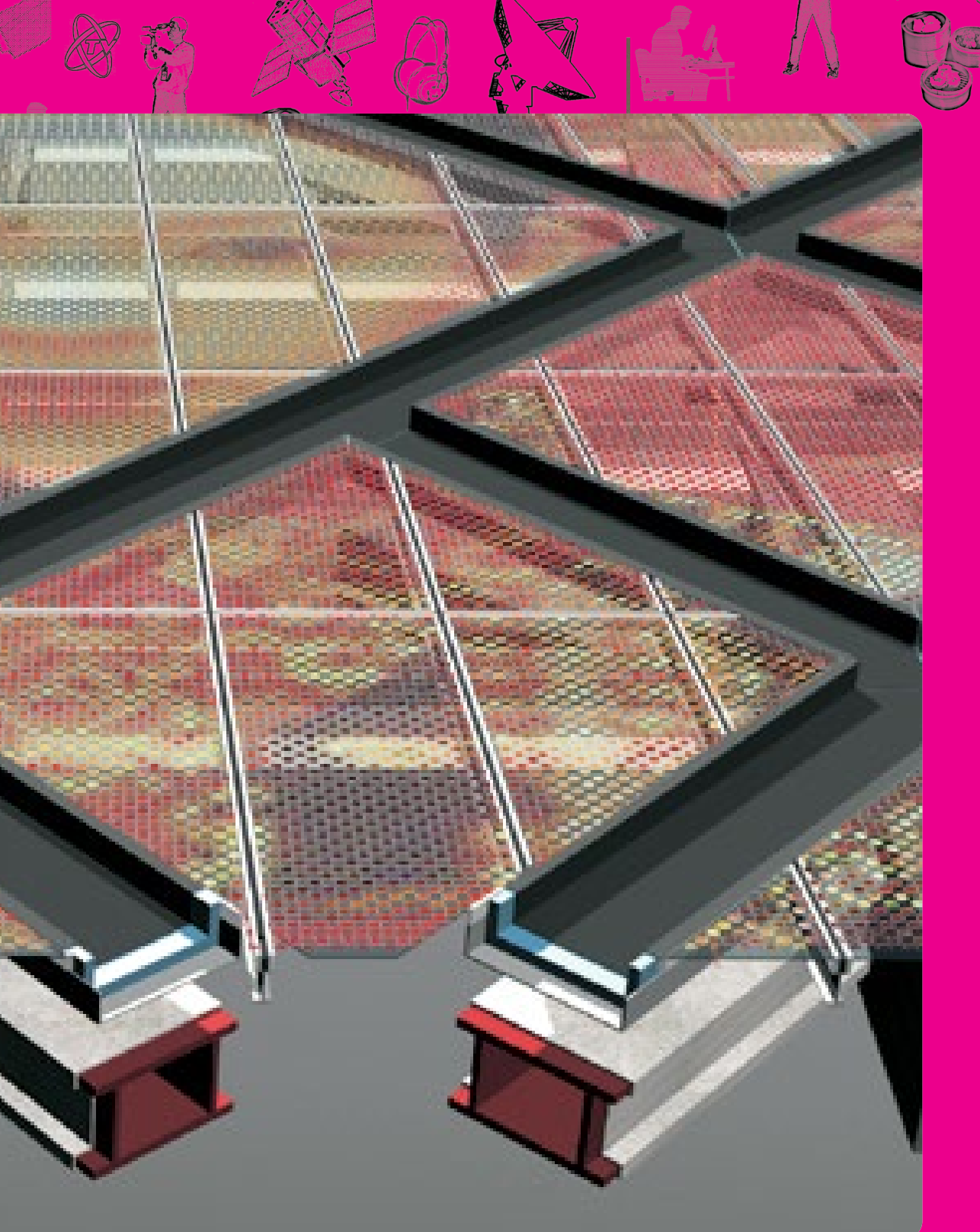
to emerge. It is not only this form, once it is proven that we can build it, it is not only this building which will be realized with incredible and outrageous effort, it will also liberate hundreds of other architects, good and bad as usual, to be more experimental and to surrender less to a dictatorship of gravity.” *Discussion at Tsinghua University, 5 August 2003*



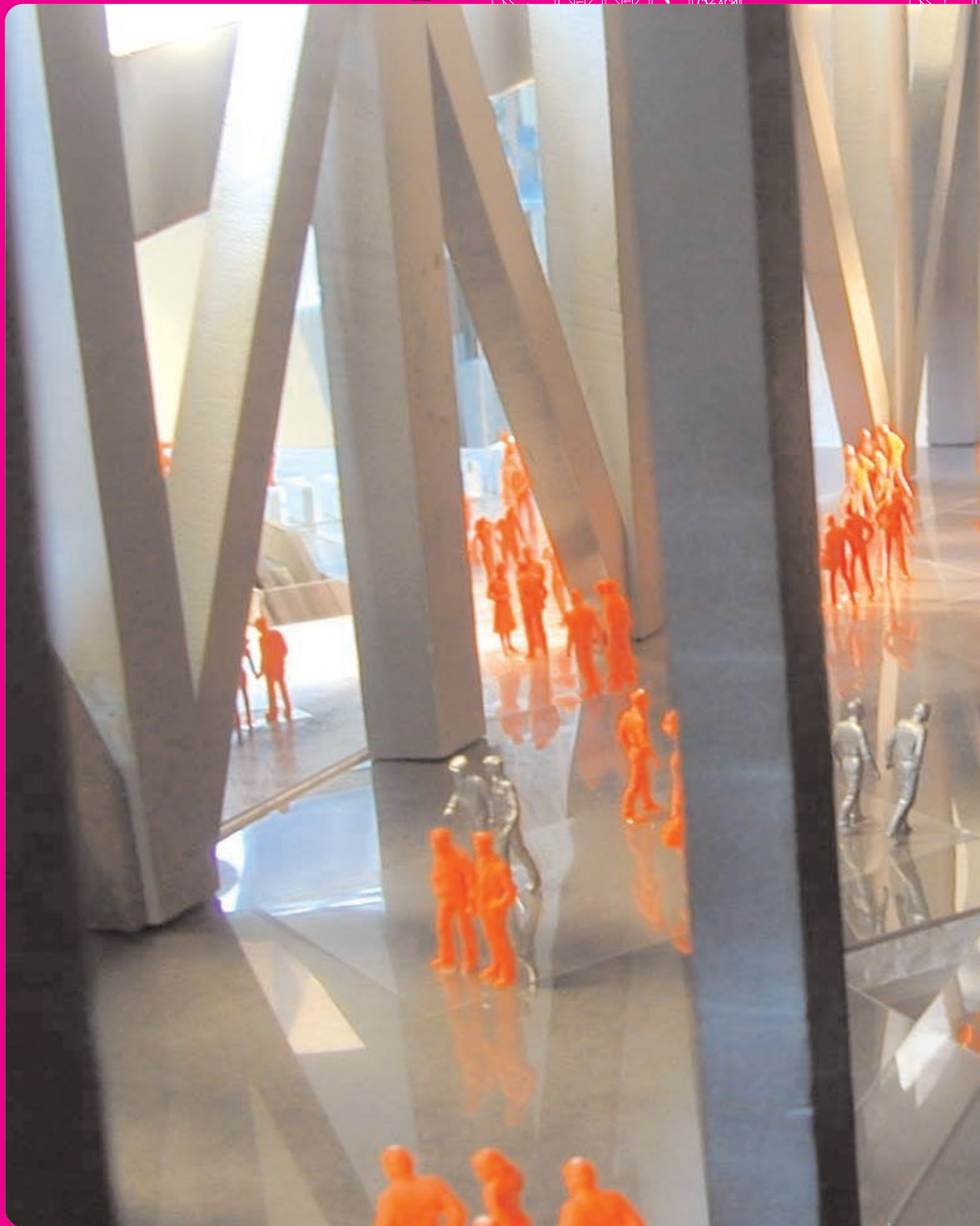
The primary structure of the building is the triangulated surface of the loop, which acts as a mega-tube element with all the inherent benefits of stiffness, redundancy, robustness, and torsion capacity. It takes all the horizontal loads on the building. Instead of simply reinforcing the points of greatest stress, we doubled and where necessary, tripled the dia-grid – or we took out redundant structure...

While television is a medium that reaches everybody, television buildings all over the world are mute. They fail to achieve their iconic and urban potential, remaining lifeless both day and night. CCTV will be one of the most influential TV stations worldwide. An active façade will launch a contemporary iconography for the city and the world.... It will bring invaluable business potential for CCTV, and further integrate CCTV'S headquarters with the city.



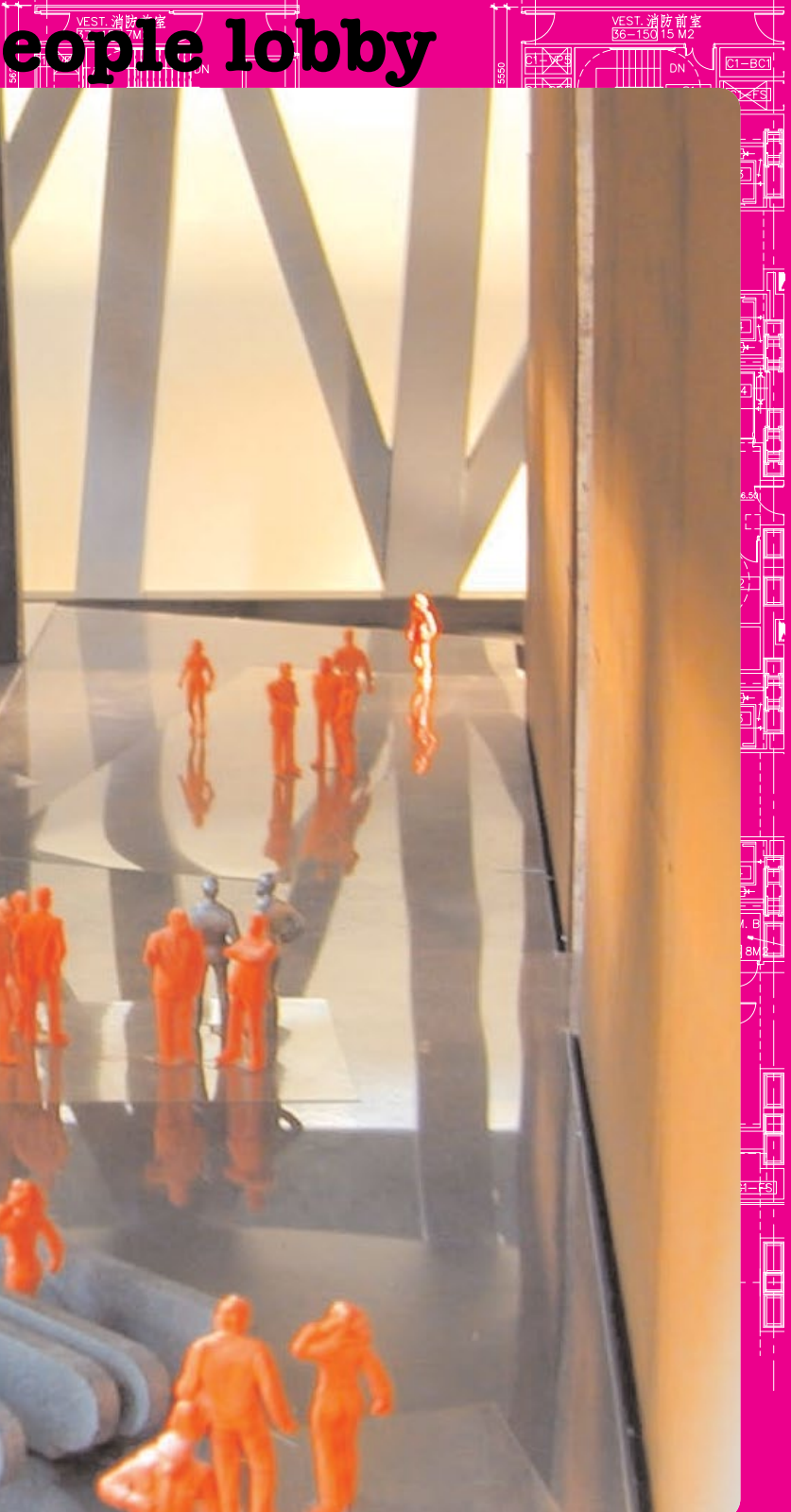


kept from the past?... embraced of the future?



BROADCAST  
电视工艺  
36-161 6M2  
C1-BC1

# 10 000 people lobby





An excerpt from:

# FORWARD COMPATIBILITY

A proposition for the future of media integration in China

BY RENE DAALDER

A TV station like CCTV serves as a beacon, connecting the public at all times with the rest of the world. It represents the viewers' worldwide eye, ever alert and encompassing the entire planet. It helps them fall asleep as well as waking them up - it is the familiar backbone of their lives

Historically, the television industry has not promoted change. Due to TV's dependency on fail proof technology, allowing it to broadcast around the clock, the medium has evolved in small increments. But with the impending worldwide introduction of digital television, TV is about to undergo the most radical transformation since its invention. As microprocessors, wireless technology, fiber optics, satellites, the Internet, and digital compression coalesce, the manner in which products and services will be created, distributed, and used is about to change in unprecedented ways, and over time will radically alter the function of today's broadcasting organizations.

Instead of being like the production centers of today, the TV studio of the 21st century is likely to bear more of a resemblance to a central bank credit card processing plant, where terabytes of information are stored for immediate or near-real time access. The concept of video or audio footage will become obsolete, replaced by generic "digital

file." No longer will vast amounts of archived tapes have to be transported from one floor to the next to be mounted on acres of video tape machines with a hodgepodge of different standards and configurations.

In the future, universal digital translators will make it possible to access, update, and store data without losing any productivity. A tapeless ingest component managed by software will allow producers, editors, or graphics artists to instantly retrieve and repurpose the content in all possible delivery formats. Thanks to the user interfaces of tomorrow, the workforce will be completely unaware of any technical issues or even the location in which the tasks they perform are being processed. The system's distributed intelligence accesses computers just as easily in Beijing as in Shanghai: the station's computerized resource management can find intelligence-on-tap in an online system that extends far beyond its own premises.

In this fully networked future, the viewers as well will be connected to a massive computerized utility that will dramatically change CCTV's way of interfacing with the public. Rather than being broken up into the different segments of TV, telecommunications, and the Internet, the new infrastructure will encompass all of them. Constant uploads

and downloads will give the concept of interactive programming a whole new meaning, hinted at by the online gaming techniques of today. Programs will no longer be on or off the air, but always available and automatically updated, building communities of fans who will interact with the data stream and each other in a media world that has truly come "alive."

Due to historical and geographic circumstance, CCTV's headquarters in Beijing will inevitably become an important hub in this evolution of the global media landscape. Incredible efficiencies in the workflow will be realized along with an increasingly bi-directional relationship between the station and the public, which will no longer be bound by the traditional limitations of time and place. As CCTV's digital brain becomes ever more transparent and ubiquitous, it will be precisely the immaterial elusiveness of tomorrow's networked world that will give the new building's presence its greatest importance.

January 27, 2003

## CCTV – OMA/AMO: Forward Compatibility

### Seminar

Based on a request by CCTV, OMA and AMO are organizing a seminar to discuss current technical developments in media and their implications on CCTV.

### Hypothesis

The main obstacle to harnessing the benefits of television's coming digital revolution is posed by the rigidity of the television industry, which imposes artificial standards and demands the use of proprietary software.

- There are no less than 13 different high-definition production standards being promoted by various nations and manufacturers, with an additional three distribution formats for antenna, satellite and cable.
- Although manufacturers of broadcast technology and consumer electronics like Sony, Thompson, or Panasonic claim to be ready to discuss open standards for many of their products, at least 75% of their equipment is still not compatible.

We would like to highlight the opportunities for a different approach on two levels - for CCTV as the dominant TV station in China and for China as the biggest emerging market for TV and other digital services in the world.

#### A) CCTV

With the introduction of digital TV, the concept of video or audio footage will become obsolete, replaced by the generic nature of digital files. The following are potential consequences:

- Files will be stored and retrieved easily and, furnished with 'metadata', also searched more effectively. The TV station will be a searchable data archive, much like a library.
- Video on demand and bandwidth on demand will create a new balance between what a TV station wants its viewers to look at and what the consumer wants to watch. The TV station will be a content provider rather than a broadcaster only.
- Interactivity will allow a TV station to communicate directly with its viewers, with profound implications for the kind of programs that will be produced. The TV station will be not only the mouth, but also the ears of the nation.
- With the advent of digital cinema, TV and movies will simply be different resolutions of the same material, with profound implications for production, storage and distribution. From being a specialized "manufacturer" of TV content, the digital TV station will become the central hub in a network for the production and distribution of moving images, and could take on a much more widely defined cultural role.

#### B) China

China is characterized by the need to spread opportunity and information rather than protect manufacturers and other established interests. It could use its dominant position, the force of its numbers, its economic power, and its central government to lead the world into a digital future.

While China might choose to exert some control over content for its internal political stability, it can be the first nation to create truly open standards for its technological infrastructure spreading connectivity and opportunity.

- Both CCTV and the Chinese government have a strong central authority able to impose rules and standards.
- Large players and rigid standards are not yet established.
- Digital culture is quickly absorbed in China. In many areas, China has the most sophisticated users, and sophisticated developers are emerging quickly.
- TV is the main tool for communication and plays a potentially political role.
- China's vast countryside, currently being put in focus by Hu Jintao, makes it attractive for China to choose satellites, wireless technologies and digital cinemas, rather than the traditional microwave technologies and cable.

PROF. R.L. KOOLHAAS

O.M.A. STEDEBOUW B.V.  
K.V.K. 24.167.946  
ABN AMRO BANK  
REKENINGNR. 54.49.01.371  
SWIFT code: ABN ANL 2R

**WTC III, Bin Laden II**

In September 2000, the Spanish critic Galiano compared me to the writer Houellebecq. "It is not easy," he writes, "to feel sympathy for either of these bitter heroes... impossible not to feel admiration for their toxic talent." In October 2001, when I had just been acquitted of a charge of plagiarism in London High Court, my accuser compared me to "the third World Trade Tower," and vowed to bring me down, yet. Two years later, Galiano, in a terrifying escalation of metaphor, admitted that he felt "the same genre of fascination and repulsion provoked in many of us by Osama bin Laden, a charismatic figure whose lure cannot be abstracted from his ominous audacity...." If I'm bin Laden, what is my America? Will failure put a price on my head? Should we look out for the "Dead or Alive" cover? Personally, what most strikes me about Houellebecq is his humor. And the indiscriminate tenderness he extends to all his protagonists, as they scrape a minimum of pleasure from our flattened, uncivil society....

*A telephone conversation, September 18, 2003*

—My friend, X<sup>1</sup>, recommended that I talk to you.... We've had a lot of negative press recently.... Disaffected former clients.... It's an avalanche. It seems orchestrated.... We have no idea where it comes from....

—Let me think about it for a few days.

Two days later

—Hi. Did you think of a strategy?

—Yes. First off the bat: your situation is not that desperate.... X is behind you all the way. And I think Y<sup>2</sup> likes you too....

—But that's exactly the problem: they like us so much they can't write about us anymore. No one would take it seriously.... You have to think of something new.... Apart from counting our friends, is there anything else we can do?

—Yeah, I think we should think of a charity.

—.... A charity!....

—Yeah, there's a few nice ones around. The Robin Hood Foundation, JFK Jr.'s old charity. That would be a good one for you....

—But I'm never there.... I put all my goodness in our work... try to spread it over the world. I'm almost never in Z<sup>3</sup> anymore....

—Well, you said you wanted to improve your image didn't you....

—I....

1. The world's most feared critic
2. The second most feared critic
3. The most important city in the world

