EMBARGOED FOR RELEASE UNTIL MARCH 21, 2012

Conclusions from an assessment of three major redevelopment projects in Paris: *Le Projet Triangle, Paris Rive Gauche, Clichy-Batignolles*

Council for European Urbanism

In cooperation with SOS-Paris

21 March, 2012

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White Paper Report

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EXECUTIVE SUMMARY

This report presents the results of an October, 2011, fact-finding study in Paris, France, to evaluate three new projects within the central city area, now in development in part as the result of recently liberalized planning restrictions on tall buildings.

A fact-finding delegation from the Council for European Urbanism (CEU) investigated the projects and the sponsors' claims in cooperation with SOS-Paris, a long-established Parisian architectural preservation group. The delegation came with no preconceptions and stipulated that the CEU would reach conclusions as an expert group. The delegation visited two of the sites, in the 13th and 17th arrondissements, where lower buildings are under construction, but work on the tallest buildings has not yet begun, and studied planning literature for the third site, where no construction has taken place.

The fact-finding delegation evaluated these projects in light of specific claims made by city officials and project supporters whose aim is to justify a major change in urban development policy for this world heritage city.

The fact-finding delegation makes the following conclusions:

1. On the basis of the three projects reviewed, we find claims that new tall building projects within the central city of Paris are necessary to achieve adequate numbers of housing units are unsupported. We find no evidence that such projects will add a greater number of housing units than might be achieved with traditional low-rise Parisian buildings. In fact, one of the projects adds no housing whatsoever. Nor do the projects improve the balance of housing to jobs, and indeed, they may make the imbalance greater.

2. On the basis of the three projects reviewed, we find claims that new tall building projects will increase the economic development of the city to be modestly supported, based upon the City's own assumptions about economic growth, but counter-balanced by likely greater long-term damage to the economic attractiveness of the city. We find further that, in the wake of the 2008 financial crisis and more recent sovereign debt crisis, the City's assumptions behind these developments are fundamentally in question, and should be re-examined.

3. On the basis of the projects reviewed, we find that claims that new tall building projects will "promote sustainability" of the city as a whole are unsupported. The buildings themselves utilize experimental approaches to sustainability that rely on weak post-occupancy evaluation research – where it exists at all. The evidence for sustainability on the urban scale is equally problematic.

4. We find further that new tall buildings within the *Boulevard Périphérique* beltway will create a

significant visible alteration to the skyline of Paris, which will detract from, rather than enhance, visual harmony. We find significant evidence to suggest that they may measurably impact the economic value of the city's heritage tourism industry.

5. New tall buildings within the *Boulevard Périphérique* beltway may in any event be in violation of Article 6 of the Venice Charter, the international convention that is intended to conserve monuments such as the historic center of Paris:

> ARTICLE 6. The conservation of a monument implies preserving a setting which is not out of scale. Wherever the traditional setting exists, it must be kept. No new construction, demolition or modification which would alter the relations of mass and color must be allowed.

   We recommend that this matter be referred to conservation bodies such as the World Monuments Fund, ICOMOS, and UNESCO for review and possible reclassification.

6. We find further that all three of the proposed developments under review follow a "CIAM Modernist" model of urban structure that is in marked contrast to the fine-grained, human-scaled structure of the central city. We find the justification for this abrupt change – that the new urban structure is more "authentic" in a "modern age of sustainability" – to be without merit. Indeed, there is real evidence that it is extravagant, from a resource point of view, and poorly adapted to long-term human need. To be sure, artist-designers, and their connoisseurs, are gratified by its creation.

7. We find further that the City of Paris could achieve its announced objectives without building towers and, in addition, that the sites it has chosen for these three tower projects can be far better utilized.

8. <u>In conclusion, we recommend that a major review be commissioned of these proposed developments, assessing all the scientific evidence for their likely success or failure in greater detail, and the likely social, economic and environmental consequences thereof. On the basis of this review, the developments should be modified immediately to comply with such impartial findings.</u>

Conclusions from an assessment of three major redevelopment projects in Paris: *Le Projet Triangle, Paris Rive Gauche, Clichy-Batignolles*

Introduction

Big changes are coming to Paris – but whether these changes will be for the better is the subject of vigorous current debate.

Indeed, there are some who question the definition of "better." Do we mean more prosperous? More exciting and more innovative? Creating more jobs? Or perhaps, creating fewer jobs that will endure?

Here we will use the most common-sense standards for what a "good city" is: a city whose residents find it beautiful, a city that scores well on sustainability criteria (social, economic and environmental), a city that does not hinder economic growth, but does not sell its long-term heritage assets for short-term growth either. By those standards Paris is already a very good city, indeed a great city. In any other field of inquiry, its successes would be held up as models for the future.

Paris is certainly widely admired. It is the most-visited city in the world, welcoming approximately 28 million tourists per year (a major engine of its economy).[i] The dense Haussmannian blocks and excellent public transit of central Paris make it a model for so-called smart growth advocates in the United States and worldwide. Therefore, we must approach changes to this exemplary city with caution.

Under a new law enacted by the City Council in July of 2008, however, for the first time since 1977, builders can erect tall buildings (for these purposes, above 37 meters, or 120 feet, about 11 stories) in Paris, within the ring road called the *Boulevard Périphérique*.[ii] The first three of at least six planned projects, and possibly many more, are now moving forward. What will be the impact of these projects on the city and its skyline? Will they meet the goals stated by their promoters? Will they cause serious damage to the historic character and status of the city, as alleged by critics?

This report is the result of an investigation that seeks to help Parisians and other concerned parties to answer these questions for themselves, by presenting and assessing accurate information (or as accurate as we are able to find) on the first three projects. We ask what are the specific claims of the promoters; what is the available evidence for or against validating the claims; and what other issues may be significant enough to require consideration as a matter of urban policy. The investigators include international planners and scholars in urban morphology. (See *Investigation Team.*)

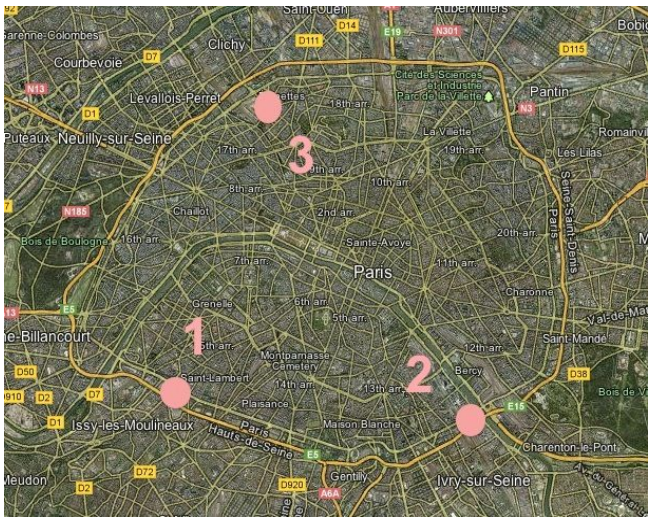
We make this assessment as a matter of public interest and active democratic debate. These projects are not economic products exchanged in private, but major transformations of one of the world's greatest urban treasuries. Certainly the citizens of Paris, and indeed others with an interest in both our global urban heritage and our common urban future, have every right – and even responsibility – to examine and debate these issues with the utmost care. Given the much-commented upon egregious urban

failures of the recent past, a precautionary approach – at the very least – is warranted.

Background

In 1977, under then-mayor Jacques Chirac, with support and urging from president Valéry Giscard D'Estaing, buildings within the center of Paris above 31 meters and on the periphery above 37 meters (about 120 feet, or 11 to 12 stories) were banned. The ban came in response to overwhelming negative public reaction to the *Tour Maine-Montparnasse*, a strikingly out-of-place 58-story building in the center of the city. Public opposition to such *gratte-ciels* or skyscrapers continues, with numerous surveys showing a majority of citizens opposed. One 2008 study by CSA/*Le Parisien* showed that 55% of Parisians, and 64% of the country as a whole, are opposed to tall buildings within the central city.[iii]

But in 2008, Paris' mayor Bertrand Delanoë and the Paris City Council, citing a housing shortage and the need for economic development within the city, removed the height ban. Mayor Delanoë's Socialist party had just emerged victorious from an election after which the Socialists no longer needed the votes of the Green Party, long an opponent of towers.[iv] The move was controversial: one Green Party councilor said the tall buildings were "the town planning equivalent of the SUV: flashy machines that devour energy."[v] Acknowledging the City's highly-public commitment to environmentalism, Deputy Mayor Anne Hidalgo and others have been flaunting the sustainability claims of these new projects. Architects and developers have also joined in the chorus of support for towers, arguing that the city must, in effect, "get with the future" and recognize the need for economic development – or else Paris will become a "museum city," like Venice.



Locations of proposed tall buildings within the three projects under study in this report. 1: Le Projet Triangle; 2: Paris Rive Gauche; 3: Clichy-Batignolles

Support for tall buildings has also come from French President Nicolas Sarkozy, whose "Grand Paris 2030" initiative seeks to develop "a new global plan for the Paris metropolitan region"[vi] Ten teams, each led by a big-name "starchitect" known for tall buildings (e.g. Jean Nouvel and Richard Rogers), participated in working groups suggesting revisions for the Paris region..[vii] President Sarkozy says his architects have insisted on tall buildings.

Mr. Sarkozy's initiative itself was greeted with controversy – Mayor Delanoë, for example, expressed disapproval of the national government's meddling in local planning. But the agenda was not in question by Delanoë – indeed, he was only resentful of the fact that Sarkozy "is trying to claim for himself an urban dynamic begun long ago by the local governments."[viii] As shown by the action of the City Council under his leadership, Delanoë certainly did not question the need for central new projects with tall buildings as part of the city's economic development.

Deputy Mayor Hidalgo herself, writing in her blog, stressed the need for the city to remain "one of the world's first capitals in tourism business, trade fairs and exhibitions." The government of the City of Paris has at the heart of its priorities, she said, "economic development, employment and innovation. In the context of increased European and global competition, this ambition must now be translated in concrete by reinforcing its economic attractiveness."[ix] In other words, we have to accept tall buildings, and get on with them.

But there are many assumptions packed into that assertion: whether these projects are the only, or the most appropriate, means of achieving the City's goals of economic development, employment and innovation; whether there are suitable alternatives, which have not been examined; whether any short-term economic benefits will result in much greater damage over time to the long-term economic value of a common heritage asset; whether the majority of Parisians have a right to have their concerns taken seriously by their government; and whether, in the current economic climate, there are troubling linkages between excessive real estate speculation and a failure of government accountability.

From a professional perspective, there is also the question whether the design philosophy exhibited in these projects – a "Modernist" one based on artistic novelty and rejection of traditional solutions from the past – is truly the only legitimate option "of our time," or indeed, is even consistent with the new realities of resource depletion, financial disorder, and other unsustainable practices.

These assumptions, we suggest, must be examined carefully, for the sake of all Parisians, now and in the future. Moreover, since Paris represents one of the world's greatest heritage assets, the outcome of these debates is of worldwide concern. This report is intended as one step in that wider assessment.

Goals of the Projects

The comments on the record by Deputy Mayor Hidalgo, Mayor Delanoë, and other project boosters, clarify a number of central goals and assumptions about all of the projects, including the three under review in this report. We therefore state these goals here as the premises for the evaluation that follows:

1. New tall buildings (and their associated urban projects) are needed within the *Boulevard Périphérique* to boost the economic competitiveness of Paris.
2. New tall buildings (and their associated urban projects) are needed to alleviate the shortage of housing, including affordable housing, within the center of Paris.
3. The new tall buildings proposed (and their associated urban projects) will set an important new benchmark of urban and building sustainability.

Not stated explicitly, but following from these three aspirations and related comments, are three implicit claimsabout the developments, which we will also evaluate:

4. The schemes will not degrade the quality of life of Parisians.
5. The schemes will not jeopardize the city's heritage status, or the economic benefits of tourism.
6. The schemes will add to, and not detract from, the quality of urban fabric with in the City – judged from the perspective of human quality of life.

The Evaluation Team

The assessment was undertaken in cooperation with SOS Paris, a citizen architectural preservation "watchdog" group founded in 1973 to oppose President Georges Pompidou's plan to build highways along the banks of the Seine, and it began with a call from an American member of SOS Paris. While recognizing the need for sustainable economic development, SOS Paris continues to play an active role in public-interest review and, where appropriate, to challenge projects that are not in the public interest. It has opposed plans for towers. SOS Paris served as hosts for the evaluation team.

The evaluation team was a delegation from the Council for European Urbanism, a Stockholm-based non-governmental organization of professionals and activists that is "dedicated to the well being of present and future generations through the advancement of humane cities, towns, villages and countryside in Europe." The CEU does stress the need for economic competitiveness as one criterion, along with avoiding "waste of land and cultural resources," "loss of respect for local and regional resources," "social exclusion and isolation," and "urban sprawl."[x] The group's "Oslo Declaration on Climate Change and Urban Design" affirms "the lessons of history and the need to learn from the successes and failures of the past and present." The group recognizes the need for "a new evidence-based approach to the planning of our cities and towns, taking its cue from induction and observation of what has worked in the best human settlements of the past."[xi]

The CEU recognizes the need for economic development and sustainable new approaches to urban design. At the same time, it recognizes the enormous value in existing patterns and resources, and the disastrous mistakes that have been made in the recent past of urban planning and architecture – sufficient to warrant a very careful assessment of what are often seductively marketed new projects.

Study Area One: La Tour Triangle

The project is a 50-story, 180-meter tall building shaped like a pyramid, located in the southwest part of the city, near the Porte de Versailles As originally proposed it contained offices, a luxury hotel, and shops and restaurants at street level. The program has more recently been limited to offices.

Le Projet Triangle. (Image courtesy Herzog and De Meuron.) The promotional materials portray a building that is remarkably transparent and "crystalline."

The architects are the Swiss firm of Herzog and de Meuron. Perhaps seeking to portray the project as a benign neighbor, their description of the project on their company website emphasizes a "fililgree, crystalline nature" and an elaborate response to context:

> "Apart from its structural and technical qualities, the filigree, crystalline nature of the project permits its integration in the system of perspectives formed by the Hausmannian axes. This dialogue with the city is not

> however limited to its silhouette, but also defines the internal organisation and texture of the project."[xii]

The architects also describe the project's urban design achievements:

> "The Triangle is conceived as a piece of the city that could be pivoted and positioned vertically. It is carved by a network of vertical and horizontal traffic flows of variable capacities and speeds. Like the boulevards, streets and more intimate passages of a city, these traffic flows carve the construction into islets of varying shapes and sizes...

We note in passing here, for later discussion, that the historic fabric of Paris did not rely upon the erosional forces of rapid traffic flows to carve "islets," but this is not a point of concern to the architects:

> "This evocation of the urban fabric of Paris, at once classic and coherent in its entirety and varied and intriguing in its details, is encountered in the façade of the Triangle. Like that of a classical building, this one features two levels of interpretation: an easily recognisable overall form and a fine, crystalline silhouette of its façade which allows it to be perceived variously."

We will only note here that there are of course major differences between the geometry of this elevation and the geometry of classical Parisian urbanism – in scale, texture, grain, fractal or self-similar repetition, and of course, height. There are also other major differences of character, including transparency, variety, and "naturalness" of materials.

> "Its volumetry also takes into account the impact of a high building on its environment. Its triangular shape actually means that it does not cast shadows on adjacent buildings. The environmental approach of the project is also perceptible in this simple, compact volumetry which limits its ground impact and allows the optimum utilisation of solar and wind power due to its excellent positioning."[xiii]

These are remarkable claims, which we assess in more detail below, along with other related environmental performance claims.

Assessing the general claims of the project

The architects claim that the silhouette is a benign presence that will engage in a "dialogue with the city." We see no evidence of this, and in fact, given the striking degree of contrast and failure to respond to context, we would be tempted to term such an exchange an "argument with the city" instead. We are not persuaded that a "filigree, crystalline nature" could be achieved in practice, given the usual reflective properties of glass. We note that it is common to see pre-construction architectural renderings that make buildings look transparent, when the buildings as constructed turn out to look opaque.

Nor would this transparency appear to be a desirable characteristic from a thermal conservation point of view. Indeed, the building seems to have an extremely high ratio of glazing to floor area, and an

undesirable solar exposure along its long dimension from east to west. (More specific evaluations on sustainability claims follow below.)

Similarly, the language describing the form as "... pivoted and positioned vertically... carved by a network of vertical and horizontal traffic flows of variable capacities and speeds" is an interesting idea, but it is difficult to see how these innovations will translate into reliably good-quality urbanism.

We are assured that the building is going to be a good neighbor and carry substantial green credentials. Indeed, the architects make the remarkable claim that the building will not even cast shadows on its neighbors. But it appears to us that the building does cast shadows on its low-rise neighbors, and would certainly cast longer shadows at sunrise and sunset.

The argument on positioning for solar and wind power is interesting, but we do not note detailed descriptions of plans for such facilities. Paris has only 57 days of full sunlight a year, making it a poor candidate for solar power. (Again, see our specific evaluations below.)

Economic competitiveness claims

Deputy Mayor Hidalgo has stated that the tower will "provide the city of Paris a true symbol commensurate with the city's economic vitality."[xiv] We presume that she believes that significant economic activity will be generated by this facility, justifying its prominent interruption of the city's skyline – a historic and economic asset of high magnitude.

We conclude that the building will add only fractionally to economic development, and only do so with the most "boutique," high-cost space. We do not see evidence that the project offers a significant, economically competitive, addition to the city's inventory.

We are informed that the project will cut the exhibition area of the Porte de Versailles in half. We understand that this will result in separating the various animal exhibits in the annual Salon d'Agriculture, impacting the exhibits. Construction will require closing Hall No. 1, and this has already forced annual exhibition groups to make alternative plans.

It is important to note that the City will not only receive tax receipts from this project, but may also profit as an investor. Therefore, the City is not, in such a position, an unbiased watchdog over the public interest. In our view, this makes careful assessment of this project and its claims all the more important.

It is also the case (and should not be in itself controversial) that the developers, architects and many other supporters will benefit from the project. It is only fair that they should be compensated for their work. But it does not automatically follow that this project, in which they have a clear interest, is also therefore in the interest of the wider city.

Claims to mitigate housing shortage

The chief claim of Mayor Delanoe and the City Council when they approved tower projects in 2008,

was that towers would help to alleviate the housing shortage in Paris. As currently conceived, however, Projet Triangle does not include any housing and therefore it does not itself mitigate the housing shortage.

We note that some proponents claim that this new building will allow businesses to move out of Haussmannian buildings that have been converted from residential to office use. Thus, in theory, these Haussmannian buildings will be freed to return to residential use. But critics point out that Projet Triangle is appropriate only for occupancy by large corporations, while the businesses that are located in Haussmannian buildings are generally much smaller.

We note that if the building does bring additional jobs to the city, but without creating corresponding housing within the city, it may aggravate existing shortages and transportation challenges.

Sustainability claims

The project team makes a number of sustainability claims, including arguments that its design is ideally configured for solar and wind generation. However, as noted above, we are not aware of any plans for actual solar or wind generation capability on the building. Indeed, in most cases, solar and wind generation on tall buildings is rarely able to generate a significant percentage of building load. We therefore conclude that this claim is without any documented credible substance. We note, in addition, that Paris does not have a sunny climate, making it inappropriate for use of solar power.

The promoters of this and other projects, including Deputy Mayor Hidalgo, have stated ambitious plans to reduce CO2 emissions. At the request of the UK Green Building Council, the consulting firm Sturgis Carbon Consulting reviewed this scheme, and made the following comments:

> A brief look at the scheme suggests that it may have a number of measures to reduce and / or mitigate operational CO2 emissions, however there does seem a lot of glass (some overhangs?) which must lead to heat gain issues. I would also question whether it is efficient in terms of the CO2 emissions associated with constructing and maintaining it (the embodied emissions), i.e. is it efficient and sustainable in whole life carbon emission terms? Is the selection of materials and the general design of the building promoting a low embodied carbon footprint per m2 or per person? A complex external skin could also ratchet up significant future carbon emissions when it comes to maintenance/replacement in later life. ...This could well be an inefficient building in whole life CO2 terms.[xv]

Michael Mehaffy, a sustainability consultant and a member of the evaluation team from the CEU, has also noted that tall buildings are inherently higher in embodied energy, due to the added engineering requirements for stiffness against wind loads and earthquakes, and use of greater percentages of steel and concrete per meter of occupiable space.[xvi]

Parisian quality of life issues

As noted, this project will not add residences, but will add to daytime office and retail activities. This is likely to place additional strains on existing transportation infrastructure, and may exacerbate

crowding during peak travel times.

The project architects argue that shading effects have been minimized. We do not see evidence that this is the case to the sweeping degree claimed (i.e. “Its triangular shape actually means that it does not cast shadows on adjacent buildings.”) Nor have we seen evidence of efforts to alleviate wind effects at ground level.

The project will undoubtedly present a strikingly different visual experience for residents – not only within the neighborhood but across the entire city. Supporters of the project argue that the architects have produced a stunning work of art that will add to the City's stature. But we wonder whether Parisians should regard this as nothing more than the usual claim by project boosters. There is no guarantee that any new work of art will prove to be enduring and ennobling to life in the city. In this sense, the building might be rightly considered a gigantic experiment upon the city, by artists and developers. Then the citizens must ask, what is the risk, and what is the reward? Would the reward be far greater than the risk? We conclude that this is extremely unlikely.

Possible effect upon the city's heritage status, and viability of tourism

Deputy Mayor Hidalgo and others argue that Projet Triangle and other new tall-building developments are needed to develop the Parisian economy. But the Parisian and French economies are already strongly dependent on its tourism sector – still the largest industry in France, at 84 billion Euros per year.[xvii] That industry is in turn strongly dependent on an intact and appealing heritage, and the valuable “brand” of Paris as a beautiful low-rise city. Will the project do more harm than good? Would it be wiser stewardship of this priceless economic asset (and world heritage resource) to develop other low-rise projects within the city, and confine tall buildings to the suburbs?

Is there a convincing reason why this must be done within the historic city? We find none at present. Can the City achieve the same objectives without tall buildings, or by locating them further from the core? We find the answer is yes.

Regarding historic listings, we note that similar projects in St. Petersburg and other cities have threatened those cities' valuable heritage listings.[xviii] Indeed, the Venice Charter, the international document governing new buildings in historic districts, is quite clear on the allowable structures:

> ARTICLE 6. The conservation of a monument implies preserving a setting which is not out of scale. Wherever the traditional setting exists, it must be kept. No new construction, demolition or modification which would alter the relations of mass and color must be allowed.[xix]

Projet Triangle would, of course, impose an alteration of the relations of mass and color of the most egregious kind, prominently visible from across the entire city. It certainly does not keep, nor is it compatible with, the traditional setting; indeed, the clear intent of the designers is to set up a striking contrast with it. We therefore conclude that Projet Triangle is in violation of Article 6 of the Venice Charter. Therefore, we find a real risk that the project threatens the historic listing status of the entire city.

Effect on the quality of urban fabric

One of the most priceless assets of the city of Paris is surely its fine network of walkable urban fabric. Le Projet Triangle serves to reinforce a monumental, super-block design which is in stark contrast to the usual "capillary" structure of Parisian streets. The result of such schemes is typically to concentrate vehicular movement in fast-moving arterials, which sever pedestrian connectivity. Efforts to restore pedestrian connectivity through ramps, tunnels and similar measures are almost always unsuccessful, in large part because the spacings are too great.

The result of this concentration into super-block patterns is to accentuate automobile dependency, which is certainly contrary to sustainability goals. However, it is not at all contrary to the goals of Le Corbusier, the architect who is most closely associated with the development of such schemes. Writing in 1935, he set out a vision for the growth of the automobile-based city, built around precisely the kind of tall-building-in-plaza (or in park) scheme seen in Projet Triangle:

> The cities will be part of the country; I shall live 30 miles from my office in one direction, under a pine tree; my secretary will live 30 miles away from it too, in the other direction, under another pine tree. We shall both have our own car. We shall use up tires, wear out road surfaces and gears, consume oil and gasoline. All of which will necessitate a great deal of work ... enough for all.[xx]

This was clearly an economic development strategy – and one that clearly worked for a while, although the resulting guzzling of petroleum has left the world with a "fossil fuel hangover" of the worst kind.

As we will discuss in a later section, Le Corbusier was part of a group of highly influential "Modernist" urban designers known as the CIAM (Congrès Internationaux D'Architecture Moderne) which established the most pervasive "paradigm" for the making of cities, which has reigned now for the better part of a century. Has the new effort to embrace "green" design really challenged this old paradigm? Judging from this project, it appears that this is far from the case, and the old paradigm is simply getting a makeover. We conclude therefore that this project amounts to "new wine in old skins."

We have to ask then, has the city thoroughly explored all the redevelopment options for this site? There is an extremely large area of low-rise development, and then a small footprint of conspicuous high rise building, but an apparent net floor-area-ratio that remains low. Have options for a lower-rise structures been explored? What about options to penetrate with smaller pedestrian streets, thereby using the building to re-charge street-level activity? Is it possible to use the activity that will now be locked away in the extravagant glass tower – urban activity that is always a precious commodity – to spread around and help to activate a more walkable street?

Evidence now suggests that the self-organizing city, forming around walkable urban networks, has remarkable capacity to develop resource efficiencies. For cities like Paris, this may be the most powerful "green" factor of all. Our job as urban designers and planners, then, is to exploit this tendency, by creating a supportive framework at the appropriate pedestrian scale. Such a framework does not include superblocks girded by fast arterials – and it does not include, in any but the most exceptionally vital circumstances, tall buildings.

Study Area Two: Paris Rive Gauche

This area includes a major redevelopment extending south from the Gare d'Austerlitz to Boulevard Général Jean-Simon, between the Seine and Rue du Chevaleret. At its southern end, a cluster of tall buildings will form around the *Boulevard Périphérique* ring road. These buildings will be visible for much of the length of the Seine, looking upriver.

From the project website:

> Around its flagship building of the Bibliothèque nationale de France, new districts are springing up featuring all the usual amenities for everyday life. Housing, offices and activities, commercial outlets, services, schools, universities, public and cultural amenities are all gradually being created: little by little, everything which makes a city truly liveable is being established and integrated.
>
> However, only a few years ago, this part of the 13th arrondissement was no more than a series of ailing industrial facilities. It was the creation of a ZAC (mixed development zone) in 1991 which enabled the launch of an operation conducted by SEMAPA, a public-private agency, and named Paris Rive Gauche. It is now hard to imagine just how much the landscape has changed: soon, Paris Rive Gauche will host almost 15,000 residents, 30,000 students and professors and 50,000 employees day in and day out. Ten hectares of green spaces will be created and 2,000 trees planted.[xxi]

Paris Rive Gauche, viewed from the Seine. From project website.

Economic competitiveness claims

The project will add marginally to the city's rentable office space inventory, with space for 50,000 employees in addition to the 1.6 million now employed in the city center,[xxii] or an addition of about 3%.

We note that a small fraction of these 3% of new employees will be accommodated within the tall buildings that are only one component of the project. Although their design is not established, they may perhaps total as much as 100,000 square meters – approximately 2/10 of 1 percent of the 49 million square meters of Paris office inventory.

Clearly, then, tall buildings are not a necessary condition for economic development in this area.

The project website says that "by attracting head offices of international companies, Paris Rive Gauche is offering the French capital additional assets enabling it to compete with European metropolises." Again, it is not clear to us that this could not be accommodated in other locations such as La Défense.

We see no evidence, apart from the perceived preference of potential corporate relocators, that tall buildings are essential, and they may be a reflection of a "race to the bottom" mentality among competing cities.

Claims to mitigate housing shortage

On the City's optimistic assumptions about employment, the scheme will provide housing for only 15,000 of the 50,000 new employees, requiring commuting by 35,000 of the employees (70%). This can be expected to further place demands on commuting infrastructure from other areas of the city and from suburban areas.

Therefore, far from mitigating the housing shortage and current high demand in the city center, it appears to us that the project may significantly exacerbate it.

Sustainability claims

The scheme makes a number of claims to sustainable building practices, including the establishment of an "environmental charter" governing the project. The development secured an ISO 14001 environmental certification, which is regarded by most environmental organizations as a modest first step in environmental stewardship by industry; additional standards apply more specifically to urban developments, including the USGBC's "LEED-ND" standard, and the BRE's "GreenPrint" standard. The voluntary ISO 14001 standard stipulates the adoption of an "environmental management system" that may vary according to the criteria and judgments of the adoptees.[xxiii]

Questions arise, however, in connection with the tall buildings proposed around the *Boulevard Périphérique*, due to the extra embodied energy, additional exposure to solar heat gain and heat loss, and other inherent limitations of the tall building typology (see additional issues in the "general comments" section.)

The buildings already planned do express an imaginative, artistic approach to building form. While we do not deny that this approach may be very interesting, exciting and even ennobling to those who are prepared to be connoisseurs of fine art, the question of whether such forms will continue to be popular and well-loved – and thus, well-conserved – goes to the heart of the question of sustainability. Many once-fashionable art-buildings, regarded in some cases as near-masterpieces, had to be torn down in only a few decades, simply because they failed as everyday human spaces. This is not sustainability, by any definition.

Thus, we are not aware of significant achievements of the project on grounds of sustainability.

Parisian quality of life issues

As noted, this project claims to add at least 35,000 jobs to the area above the capacity of the new housing. If projections for corporate use of the space are accurate, this is likely to place additional strains on existing transportation infrastructure, and may exacerbate crowding during peak travel times.

Again, any project must address the question of quality of life for the residents who will be impacted by it, including the impact of new views and aesthetic experiences – and in this case, given the wide view shed, this group of residents very nearly includes the entire city.

Is there a justification for such a wide impact, given concerns about the impact on view sheds, daylight, wind effects and other issues? Have the project proponents demonstrated that they are practicing the highest and best standards with respect to the quality of life of nearby residents? Is theirs a precautionary approach? Or are they demonstrating something closer to a "bet the farm" approach, or a "race to the bottom" approach, in seeking to lure corporate clients to the city, almost without any regard to the possible externalities of cost -- including cost to quality of life?

We are obliged to report that we are unpersuaded of the former, and concerned about the latter.

Possible effect on the city's heritage status, and viability of tourism

The project has demolished a portion of the Gare d'Austerlitz complex, the Buffet de la Gare. It will insert radically contrasting new structures of a "Modernist" design character (see photos below). This "art aesthetic" will extend south and east to the new area of tall buildings.

We find that this is a clear violation of Article 6 of the Venice Charter on the Conservation of Monuments and Sites, which as we noted previously, states that "the conservation of a monument implies preserving a setting which is not out of scale. Wherever the traditional setting exists, it must be kept. No new construction, demolition or modification which would alter the relations of mass and color must be allowed."[xxiv]

The traditional setting has not been kept, but indeed, has been demolished in part. New construction to the south will greatly alter the relation of mass and color, creating a jarring contrast not only with the remaining portion of the Gare D'Austerlitz, but with the cityscape as a whole.

In our opinion, this violation may pose a significant threat to the city's listing as a world monument, and to its viability as a tourist destination.

Again, the promoters of the project seek economic development within the City. In light of potential damage to the views from central Paris and possible deleterious effects on the city's attractiveness as a tourist site, we do not understand why they insist upon the riskiest form of development – tall buildings, and jarring contrasts, including "Modernist" artistic buildings. It would not seem to be a wise stewardship of the city's greatest economic and cultural resources.

Effect on the quality of urban fabric

Paris presents an excellent model of walkable, low-carbon urbanism. What is especially striking in this project is that the model Paris provides has not been emulated. Instead, the project uses a coarse-grained development pattern following a minimally-differentiated, hierarchical network of streets, lanes and pedestrian paths.

Against this coarse backdrop, occasional gestures to traditional Parisian urbanism appear clumsy, for example, the traditional Parisian street cafe inserted along a monolithic expanse of concrete building facade.

This building, one of the first just south of the station, does not succeed in contributing to walkable, low-carbon urban fabric.

We must note that a very different sensibility seems to reign unquestioned: that we must not be like the past, for that would be "pastiche" and unacceptable; and indeed, the only acceptable approach is to adopt a more "Modernist" aesthetic, along with the typologies that are believed to accommodate it best - large-grained building increments, superblocks, tall buildings etc. (As we discuss in the conclusion section, this sensibility seems to govern all three projects considered herein.)

But in an age of depleting resources, climate change and rapidly evolving economic challenges, it seems imperative to examine all sources that might offer more resilient and sustainable ways of doing things – including precisely those sources that have already proved resilient and sustainable.

What of the towers near the *Boulevard Périphérique*, at the south end of the project? Are they not a necessary accommodation to modern corporate realities?

We raise the possibility that this way of doing things – this corporate "superblock on a freeway," going back to Le Corbusier and his "drive til you hit a pine tree" urbanism, as discussed previously – reflects a dying interval of oil-fueled urban history that Parisians, of all people, would do well to repudiate. Perhaps the future is in a more organic kind of model, more embracing of the ordinary comforts of the city, of its outstanding walkable urbanism, and of its self-generated, super-efficient flows of energy and vitality.

Perhaps the City of Paris will do better economically in the long run if it resists pursuit of economic "quick wins" and focuses upon development that exploits its existing assets more fully, instead of damaging them. At the very least, perhaps, such an approach should be reserved for the center.

Is this the future Parisians want for themselves? This is the future that is coming.

For when we ask the most basic questions about the proposed urban fabric in this project, we find most unsatisfactory answers. Is this a pedestrian-friendly place? Does it have a truly walkable, well-connected network of paths, activated with viable uses at many times of day?

Or does it instead have enormous disruptions, such as a huge freeway interchange at its heart, stoking the streets with torrents of dangerous traffic? Are there long dangerous passages under concrete and through relentless structures, which pedestrians must somehow adapt to?

We find that, based upon the project model and materials we were able to view, the latter is very much the case.

Study Area Three: Clichy-Batignolles

Clichy-Batignolles, just inside the Boulevard Périphérique, and northwest of the Arc de Triomphe. The new Palais de Justice will be visible from the Arc.

This project is a remarkably ambitious 54-hectare (133 acre) redevelopment of a former SNCF rail yard, featuring a large 10-hectare park surrounded by new urban areas. It will feature 3,500 new apartments as well as shops, restaurants, offices and a new "Palais de Justice" for the national government. This latter structure (which we consider in more detail below) is the project's tallest building planned at present (160m), and it has been designed by the architect Renzo Piano.

This project has exceptionally ambitious sustainable building aspirations. It has set a "carbon neutral agenda," meaning that taken together, it is not a net emitter of greenhouse gases.[xxv]

Among the goals of this agenda:

- Reduction in heating needs to 15 KWh/SM/Year.
- Certification equivalent to the German "Passivhaus" rating.
- Total building energy consumption (including electric demand loads) below 50 KWh/SM/Year.
- Photovoltaic power generation of 4,500 MWh/Year.

The project team notes that the aggressive green aspirations have required changes to the architectural style. On a "FAQ" section of the site, the team explained that while "architectural diversity" (variety, we assume) is a goal of the design, certain environmental considerations have driven form:

> ...Architectural diversity has arisen as a strong principle. From this perspective, the multiplicity of building lots is diversifying the architectural interventions. Architectural competitions are organized systematically. The architectural style of contemporary buildings also changes because of environmental concerns: compactness of the structure, openings, building orientation, insulation materials, possible integration of photovoltaic panels on the front or roof ..., all of which challenge the architects to design buildings at once innovative, livable and restrained in terms of energy, to meet the Climate Plan of Paris.[xxvi]

Palais de Justice in detail

The winner of the commission for the project's tallest building, at 160 meters (about 525 feet or approximately 48 stories), was announced in 2011, and it is the famous architect Renzo Piano. His plan is a boxy, three-tiered structure that faces its narrower aspect toward the central city of Paris – but nonetheless is clearly visible in the architects' animated fly-by from the Arc de Triomphe.

Palais de Justice project

From the architect's description of the project:

> Tiered, thin, with timeless elegance, her figure of 160 m high is part of the metropolitan skyline between Defence and Montmartre, and imprints on the future courthouse a unique identity...
>
> Crystalline architecture escapes the archetype of the monolithic office tower, with a composition featuring three sets of tiers, creating a cascade of terraces where nature generously invites. This is a vertical city, reserving places of conviviality and organized to serve judicial power in a setting conducive to the exercise of Justice.[xxvii]

Assessing the general claims of the Palais de Justice project

As we saw with Projet Triangle, the architects emphasize the thinness of the project, and the renderings leave more than a suggestion that these buildings will almost "go away" in the skyline views of the city. (Indeed, in the rendering on the project site, the Palais de Justice is shown "ghosted in" in a partially visible form.) At the same time, there would seem to be an inherent contradiction with the energy performance of such heavily glazed buildings.

More likely, given the results of previous projects, is that this building will not "go away" at all, but will appear opaque and very prominent within the skyline.

As a single use, the Palais de Justice is certainly not a contributor to the goal of diversity of uses and users within the larger Clichy-Batignolles project. Furthermore, as with Projet Triangle, the extensive use of glazing in a "curtain-wall" system, along with the long exposure to western and eastern sources of solar heat gain, seems to defeat the goal of high sustainability for the overall project. Moreover, it is well recognized that sustainability is not limited to energy conservation, but has to include many other indicators, including quality of urban fabric. We will discuss these concerns below.

Economic competitiveness claims

The project is primarily residential and recreational, with considerable office elements. The largest office element is reserved for the government, which represents not economic development but an economic drain on taxpayer funds.

Therefore, the project may contribute negligibly to the city's economic development.

Claims to mitigate housing shortage

The project will create 3,500 new apartments, which increases the housing supply within the *Boulevard Périphérique* by less than two-tenths of one percent. The Palais de Justice is not a housing project and

therefore cannot be justified on grounds of easing the housing shortage. Nor does it make space for other housing by virtue of its height.

Sustainability claims

While the project includes ambitious claims for sustainability, many of these are of the "promising new technology" variety --- that is to say, they are experimental and unproven. For example, the project touts the new German Passivhaus super-insulation system, which is a promising new system indeed, but not without technical and economic challenges. Of concern from a sustainability point of view is that there is a very short history of performance of such systems, and unknown consequences. Some previous systems – notably the "Exterior Insulation and Finish Systems" used in the USA, for example – have had enormous problems that were discovered only years after they were implemented on a large scale.[xxviii]

Perhaps the most important step in urban sustainability is simply to create a robust, well-proven kind of urban fabric, well-supported by transit. Seen in this light, large interruptions in such a fabric are almost always undesirable. From that point of view, the out-scaled park is a significant problem. So is the poor degree of pedestrian connection at the edge of the project, along the *Boulevard Périphérique* – a problem that predated this project, to be sure. Yet this project presented an opportunity to improve pedestrian cross-connection, and it seems to have missed that opportunity.

Regarding the sustainability claims of the Palais de Justice, we note several major concerns. One is simply to question why a tall building is even necessary, for any but a ceremonial portion of the building. (For example, some kind of symbolic tower element might be desirable, and would not require elevation of the entire building.)

Indeed, we see no evidence that the building site requires a tall building, or that other major benefits have been secured as a result. The height of the building seems to us to be an entirely symbolic gesture – but one that, from a sustainability point of view, moves in entirely the wrong direction.

As noted, the high ratio of glazing area to floor area is also highly problematic, as are its large exposures of glass on the east and west sides. Any other sustainability measures must "swim upstream," fighting to compensate for the negative effects of such consequential choices in building morphology.

As also noted, sustainability is not limited to thermal conservation, but must also be assessed in relation to urban vitality and diversity. A tall building, by definition, locks away a large population within a self-contained world, which deprives the surrounding streets of this critical source of urban vitality. Indeed, the architects celebrate this urban self-containment: "this is a vertical city, reserving places of conviviality [to itself]." Furthermore, since the building is next to the ring road and with abundant parking, it seems probable that occupants are more likely to use their cars than to activate the pedestrian areas nearby.

Parisian quality of life issues

The project has as one main goal the provision of a new park on a large scale – approx. 10 hectares (25 acres). This is certainly a generous provision of open space for Parisians. But as the urban scholar Jane Jacobs noted in 1961, "open space" is not automatically a good thing. It is possible to get much from a small space, as many Parisian examples show beautifully and successfully, and to waste a large space. Sadly, many contemporary projects demonstrate the latter.

Indeed, we conclude that, although it is popular with many Parisians, this facility is nonetheless much too large for its setting, and it is not an efficient user of its space. The arrangement of public space would be far superior if the large park were broken into smaller park spaces, and indeed, if even more low-rise housing were provided – consistent with the key rationale of this and other projects.

What of the quality of the urban experience for Parisians living in the area? Again we have to note the explicit repudiation of previously successful typologies, in the interest of the project being "consistent with its time." But from the point of view of urban livability, do we know that this "time" is one in which we would want to remain? The renderings we have seen, together with the first built examples, concern us as to whether this project will score very high on "livability" – or indeed, even modestly on this criterion, in relation to other areas of the historic city. Specifically:

1. Diversity of close-grained activities and people, activated at different times.
2. Open space that is activated by supporting spaces.
3. Streetscapes that are conducive to sidewalks and pedestrian activity.
4. Aesthetic character that meets the psychological needs of pedestrians for coherence, legibility and "naturalness." (See e.g. the extensive work on "biophilia".)



Clichy-Batignolles housing, with distinctly unpromising designs.

Why not copy what works? Because, some say, it is not "creative" enough, or because it is not felt to be "of our time" But this may have nothing to do with achieving a higher quality of life.

With respect to the impact of the Palais de Justice on quality of life, we have already noted the concerns with visual interruptions of the skyline. We also note that the surrounding streetscape appears to be harsh and brutal in character – an aesthetic that a designer may find handsome, but a pedestrian may not.

Possible effect on the city's heritage status, and viability of tourism

As noted before, the Palais de Justice is visible from the Arc de Triomphe and other local landmarks. Like the other two projects cited herein, the project is likely to be in violation of Article 6 of the Venice Charter governing new construction in historic districts – specifically, "preserving a setting which is not out of scale... Wherever the traditional setting exists, it must be kept. No new construction, demolition or modification which would alter the relations of mass and color must be allowed."[xxix]

The Palais de Justice design very deliberately breaks from the traditional setting, and emphatically "imprints on the future courthouse a unique identity," in the words of the architect. Its "crystalline" form is clearly a radical alteration of the relation of mass and color of the historical city – indeed, a rupture of this urban fabric – which will be visible from many points within it.

We therefore conclude that there is a serious risk of jeopardy to the city's heritage status, and a dilution of its appeal to travelers seeking an experience of the beautiful low-rise city of Parisian history – a likely significant portion of the tourism industry.

Effect on the quality of urban fabric

The discussion on the project's website is highly revealing of a tension with the attitudes of the public – so much so that we quote it at length below, followed by a commentary:[xxx]

"Q. Is it not contradictory to integrate the new district in its environment and not to respect the surrounding architecture?"

"A. This is the very spirit of the urban project designed by François Grether, Planner, and Jacqueline Osty, landscape, to connect with the surrounding neighborhoods, including through public spaces, which is so essential in today's cities."

This sounds very good. But as noted, an excessively large open space, even if providing pedestrian connections across it, can create a major disruption to the urban fabric. The existing urban fabric of Paris already provides a structure of open spaces that maintains excellent connectivity. Why, then, not use what already works – especially when it is in one's own back yard?

The website narrative goes on:

"However, the project is consistent with the times: The park does not try to copy the model of the Haussmann block, but adapts to the requirements of sustainable development and proposes new uses. Similarly, the urban "parti" [scheme] seeks to be anchored in the existing city (referring to the railway past of the site, restoration of urban continuity, development of heritage architecture, etc...) without imitating the Haussmann block."

Once again, the rigid ideology toward design that must be "of its time," and that forbids "copying,"with little consideration of the implications, dominates. What if "the requirements of sustainable development" include using what works, i.e. what has already been sustained? This possibility does not seem to have crossed the designers' minds, as they are very clearly in thrall to this rigid ideology of "the novelty of style."

The narrative continues:

"Architectural projects, too, are of their time, and take into account the contemporary concerns of high environmental performance." [xxxi]

We note that this “high environmental performance” cannot mean passive and resilient urban design strategies as established through centuries of adaptation, for it is apparently forbidden to “copy” such successes. This phrase must refer only to new and experimental devices and technologies, which may, or – judging from much recent history – may well not be, truly sustainable.

General Comments on the Projects

In summary, Paris is rushing to discard centuries of urban heritage in favor of allegedly more promising, "futuristic" projects. But in fact the model they use is itself almost a century old. It originates in the Congrès International d'Architecture Moderne (CIAM) movement, and in particular, the urban design proposals of the Swiss architect Le Corbusier.

Conforming strictly – some would even say conservatively – to this agenda, the ideology behind the design parameters revealed in these project narratives and renderings includes the following well-established Modernist elements:

1. Copying of urban and architectural characteristics before about 1930 – no matter how successful or enduring – is prohibited.
2. This includes fine-grained urban and architectural details. Insistence on only the large-scale and coarse-grained features of superblocks, tall (or at least mid-rise) buildings in parks or plazas, and a system of generous open spaces punctuated by fast-moving, uncrossable vehicular arterials.
3. Mitigation of any aesthetic drawbacks of this scheme with generous applications of imaginatively textured or shaped surfaces, and with large, diffuse, open spaces.
4. Mitigation of any sustainability drawbacks of this scheme with addition of experimental technologies such as solar collectors, and extra layers of insulation.

This approach, it is argued, is exclusively "of its time," and any other approach (including adaptive reuse of traditional Parisian urbanism in new work) is *ipso facto* inauthentic.

Ironically, then, this almost century-old design model is not "of its time" at all: it does not originate as a genuine response to the crisis of sustainable urban development in the current age of climate change and peak oil, but is instead, a "bolt-on" approach to a model rooted in high consumption of resources – as we saw with Le Corbusier's rapturous description of how he and his secretary would "use up tires, wear out road surfaces and gears, consume oil and gasoline."

It is remarkable that the only things that have truly changed about this design scheme in the last eighty years have been the specific kind of imaginatively-textured or shaped surfaces, or new kinds of bolt-on sustainable technologies. In 1940, we were bolting on noisy air conditioners; now we are bolting on quieter heat pumps. *Plus ca change,* as the Parisians say.

The question of tall buildings considered specifically

As noted, all of the projects incorporate or feature tall buildings, which, it is argued, will help to achieve good-quality sustainable development within the inner city. But there is increasing evidence that tall buildings do not perform well as a group on sustainability criteria.

Michael Mehaffy, a member of the evaluation group for the Council for European Urbanism, recently cited numerous studies that presented evidence against tall buildings, writing for the on-line journal Better Cities and Towns, and noted the long and growing catalog of negative effects from tall

buildings,[xxxii] which include:

- Increasingly high embodied energy of steel and concrete per floor area, with increasing height
- Relatively inefficient floorplates due to additional egress requirements
- Less efficient ratios of common walls and ceilings to exposed walls/ceilings (compared to a more low-rise, "boxier" multi-family form — as in, say, central Paris)
- Significantly higher exterior exposure to wind and sun, with higher resulting heat gain/loss
- Challenges of operable windows and ventilation effects above about 30 stories
- Diseconomies of vertical construction systems, resulting in higher cost per usable area (not necessarily offset by other economies — these must be examined carefully)
- Limitations of typical lightweight curtain wall assemblies (there are efforts to address this, but many are unproven)
- Challenge of maintenance and repair (in some cases these require high energy and cost)
- Psychological effects on residents — evidence shows there is reason for concern, especially for families with children

Mehaffy also noted negative effects on adjoining properties:

- Ground wind effects
- Shading issues (especially for other buildings)
- Heat island effects — trapping air and heating it, placing increased demand on cooling equipment
- "Canyon effects" — trapping pollutants, reducing air quality at the street
- Social effects — "vertical gated community" syndrome, social exclusion, lack of activation of the street
- Psychological effects for pedestrians and nearby residents. This depends greatly on the aesthetics of the building, but there is research to show that a novel design that falls out of fashion (which history shows is difficult to predict) can significantly degrade the experience of the public realm and quality of place. This in turn has a major effect on sustainability.

As also noted, there is disturbing evidence that the aesthetic character of a building can have a notable effect upon the psychological and even physical well-being of pedestrians and nearby residents (or in these cases, given their height, possibly even distant residents).[xxxiii]

The “art approach” to exciting new architecture

We end our discussion by responding to a common objection to the concerns we have raised. Many civic supporters have asked, can't such a city benefit from insertions of great contemporary art? Isn't that better than hackneyed imitations of the past?

We suggest that this argument – that using modern art-architecture is the only way to plan buildings and cities, and that all else *must* be hackneyed imitation – is the wrong thinking that lurks behind all debates over modern city planning. It is the rationalization behind the now 80-year old, fossil-fuel based CIAM urban model that we discussed earlier. And it is the rationalization for increasingly more horrendous projects around the globe today, and the veritable crisis of unsustainable urban development.

A section of the model of Paris Rive Gauche. Yes, it's cute, as an artistic composition. It may even be great art (though we doubt this). But what is it like to live there? Are these forms in any way an informed response to the deeper needs of human beings, to live in certain kinds of environments that promote quality of life? Or are these artist-architects, in their own way, performing cruel and irresponsible "novelty" experiments on human beings?

This argument has its fingerprints on the legion of failures of modern city planning that are everywhere to see, starting with the thankfully unbuilt and horrendous Plan Voisin of Le Corbusier in 1925, and proceeding at a breathtaking pace of devastation right around the globe. Those of us in the evaluation group who are architects are frankly ashamed of our profession: it has been a collaborator in perpetrating an era of an enormously destructive global regime – and now, Paris is threatened.

This is a point that the great Jane Jacobs made in her searing attack upon Le Corbusier and his imitators. Cities are not, and must not be thought of as, works of art. To confuse them with art is terribly damaging to cities – and it is damaging to art, too.

So let us be blunt: this "art attack" upon cities has failed, and it is time for a new approach. Cities are more than assembled works of art by "creative" artist-designers (or, cynically, artistic veneers over questionable industrial-scale developments). It is time to challenge forcefully the specious arguments about "zeitgeist" architecture – and indeed, about architecture as a collection of scale-violating fine art objects. However interesting, challenging or admirable they may be as art – and even in the best circumstances, given the nature of art, this is understood to be an open question – they simply do not add up to a good city. We agree wholeheartedly with Rem Koolhaas (though some may still want to question his motives):

> The work we do is no longer mutually reinforcing, but I would say that any accumulation is counterproductive, to the point that each new addition reduces the sum's value… There are many reasons to question our motives... It is not always clear whether we are using our position to engage in an intellectual discourse or an incredible ego free-for-all. Unfortunately, we have not been able to provide any dignity to the profession due to our complete technical inability to conquer market pressures and our willingness to be totally manipulated.[xxxiv]

We note here that some designers (including Koolhaas himself) think of human beings as endlessly malleable creatures, able to adapt to anything so long as it has a pleasingly artful design. We respectfully suggest that science shows this is the sheerest and most irresponsible nonsense. Human beings can be damaged by their urban surroundings as surely as any other creature can – and more so, because we are psychological beings too. The science shows that we are affected not only by the psychology of art, but the psychology of sun and air and vegetation – and indeed, of the presence and activities of other human beings. It does not do us good to lock up in tall buildings, or in automobiles or other capsules. And as we now recognize, this is also a shockingly profligate use of resources.

Designers who ignore these realities are, in our view, behaving irresponsibly towards their ultimate clients, their fellow human beings. We suggest that they would do well to acquaint themselves with a

kind of “Hippocratic Oath” approach to design. (See, for example, the CEU document on this, at http://www.tectics.com/CEU-Draft-HippOath.html.)

At the very least, under principles of such a “Hippocratic Oath,” any act to modify the patterns that have already succeeded so brilliantly in Paris must surely maintain as a first priority to “do no harm.” But as we have concluded, the present projects threaten to do great harm indeed.

Is it unfair to criticize such a prevalent approach to design? Perhaps it might be, if there were no precedents available for walkable, resilient, sustainable, lovable urbanism, that has stood the test of time. But there is, and it is all around for us to learn from, and to use again.

If we had only these three tower proposals to go on, we would have to conclude that architects no longer know how to build great cities. The fact that these tower projects in Paris are the subject of vigorous debate in the French media and in the blogosphere gives us hope, however, for the world's city, Paris.

Conclusion

The City of Paris argues that this great city needs the three projects studied here, and many more like them -- all including tall buildings. We have not, however, found any evidence to show a need for tall buildings in Paris. On the contrary, we have found much reason for great concern. The City can achieve its goals in other ways that have not been explored, and in other locations.

We conclude that these three projects will damage the well-being of all Parisians, far in excess of any contribution they will make. We find, in addition, that they threaten to damage the well-being of urban residents elsewhere around the world, by re-affirming a destructive and failed precedent within this exemplar city.

We recommend that a major review be commissioned of these proposed developments, assessing all the scientific evidence for their likely success or failure in greater detail, and the likely social, economic and environmental consequences thereof. On the basis of this review, the developments should be modified immediately to comply with such impartial findings.

APPENDIX ONE: Host Association and Investigative Team Members

Host Association: SOS Paris

Founded in 1973 to oppose President Georges Pompidou's plan to build highways along the banks of the Seine, SOS Paris has defended the historic beauty of Paris for nearly 40 years.

Exerting its members' special competence in tracking building permits and other government actions, and relying on the broad reach among French journalists of its quarterly *Bulletin*, SOS Paris refuses to let politicians and technocrats diminish Paris outside public view. While its campaigns are not always successful, SOS Paris, often in concert with other preservationist organizations, has forced the government to suspend many destructive projects, including a North-South tunnel underneath Paris with many exits in the city center, a stadium in the Bois de Vincennes, and most recently, selling the Hotel de la Marine, a national gem on the historic Place de la Concorde used as Navy headquarters for many years, to a commercial developer of hotels.

Members of SOS Paris attending:

Mary Campbell Gallagher
Louis Goupy
Harold Hyman
Marie Karel
Corinne LaBalme
François Loyer
Olivier de Monicault, President
Christine Nedelec
Jan Wyers, Secretary-General

INVESTIGATIVE TEAM: Council for European Urbanism

MISSION
The Council for European Urbanism is dedicated to the well-being of present and future generations through the advancement of humane cities, towns, villages and countryside in Europe.

CHALLENGE
Cities, towns and villages are being destroyed by social exclusion and isolation, urban sprawl, waste of land and cultural resources, monofunctional development, lack of competitiveness, and a loss of respect for local and regional culture.

OBJECTIVES
Cities, towns and villages should have mixed uses and social diversity; make efficient and sustainable use of buildings, land and other resources; be safe and accessible by foot, bicycle, car and public transport; have clearly defined boundaries at all stages of development; have streets and spaces formed by an architecture that respects local history, climate, landscape and geography; and have a variety that allows for the evolution of society, function and design.

Members in attendance:
(In alphabetical order)

Mieke Bosse
Peter Drijver
Audun Engh
Bruce Liedstrand
Michael Mehaffy
Susan Parham

Principal author of this report: Michael Mehaffy is a board member of the Council for European Urbanism, and a noted researcher and educator at two institutions in Europe and three institutions in North America. Currently he is a visiting professor at the University of Strathclyde in Glasgow, UK. He also manages the Sustasis Foundation, a small catalytic NGO in Portland, Oregon that facilitates international research collaborations, policy reviews, symposia and conferences.

Michael has also consulted for governments, businesses and NGOs internationally. In the US he has served as a consultant to the Portland Metro government (on sustainable development of centers and corridors), the new Portland Sustainability Institute (on EcoDistrict planning), and other leading local governments and NGOs. Among the internationally noted projects for which Michael has played key roles are the Unified New Orleans Plan, the new master plan for the city following the disaster of Hurricane Katrina; Orenco Station, Portland's pioneering transit-oriented development, for which he was project manager; and collaborative urban development projects in Romania, Norway, Germany, Italy, Mexico, India and the UK.

Michael has also worked closely with the UK government, six universities and leading UK NGOs, as the first Director of Education at the Prince's Foundation for the Built Environment in London. He led development of a professional education program in sustainable urban development, laying the foundation for a new Masters program at Oxford University.

Michael is on the editorial boards of three international urban journals, and on boards or advisory boards of a number of other built environment NGOs and urban research projects. He is author or co-author of numerous noted journal and professional articles, and contributing author to fourteen books.

APPENDIX TWO: Photos from the Fact-Finding Tour

The group receives a presentation by Yann Renaud (fourth from right) using the model from the Paris Rive Gauche project, in the SEMAPA company's project office.

Yann Renaud (right) explains plans for the tall buildings in the Paris Rive Gauche project.

Close-up of the buildings surrounding the Périphérique beltway, next to the Seine on the south side of the city - part of the Paris Rive Gauche project.

The group gets a tour of the existing neighborhood of Batignolles.

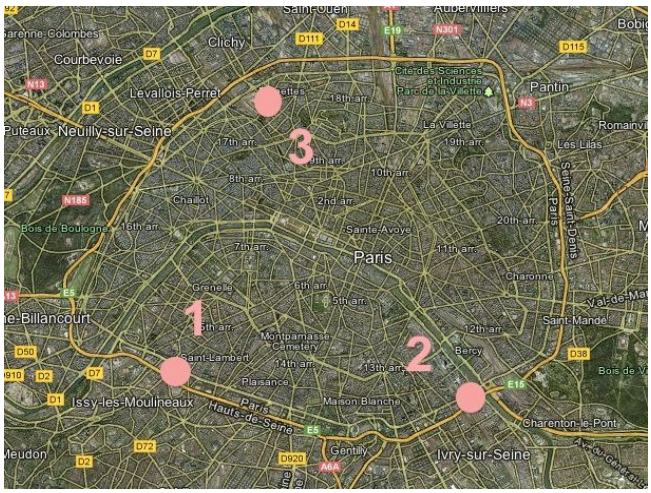
The group on the way to the Clichy-Batignolles project site.

The edge of the Clichy-Batignolles project site.

The group receives a presentation on the Clichy-Batignolles project, taking note of the Palais de Justice, a new tall building within the Périphérique.

New housing under construction within the Clichy-Batignolles project.

APPENDIX THREE: Project Data



Locations of the three tall building proposals discussed in this report

The tall buildings proposed within the three projects discussed herein are all within the *Boulevard Périphérique* beltway. These towers exceed the height limits in effect in Paris since 1977, which in turn reflect centuries of previous limitations on building height in Paris. These towers are permissible, however, under changes instituted by the City Council in July of 2008. Their visibility from the center of the city is not clustered in one zone, as is the case with the business district of suburban La Défense. Thus, the new tall buildings will be visible in almost any direction from many historic monuments and other locales within the central core of Paris.

Moreover, these three projects are only the first of many in planning and discussion. Therefore, they are important indicators of what may be to come – and what may be lost.

PROJECT ONE: Le Projet Triangle


Red lines denote approximate building footprint

PROJECT TYPE: Single high-rise building

LOCATION: Porte de Versailles, 15th arrondissement

HEIGHT: 180 meters (590 feet)

STOREYS: 50

USE: Office, limited retail

ARCHITECTS: Herzog and De Meuron

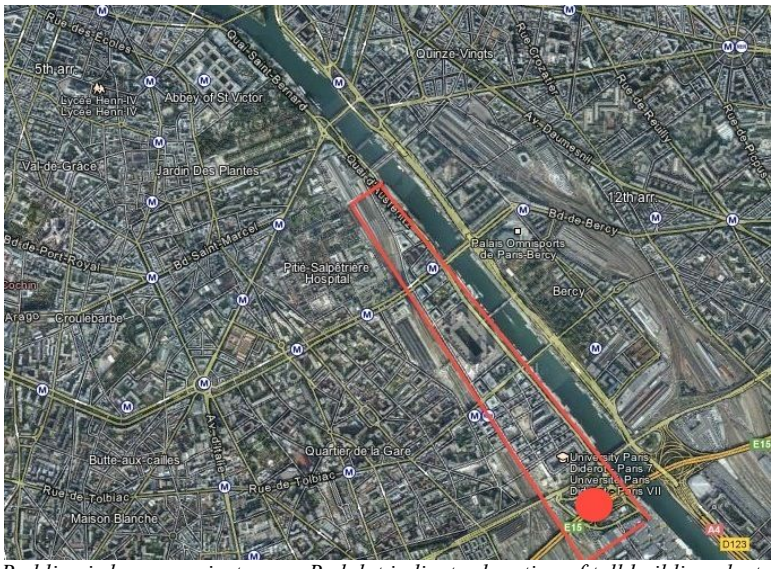
DEVELOPER: Consortium led by Viparis Holding

STATUS (2012): Building permit expected to be issued later this year.

PROJECTED COMPLETION: 2017

PROJECT INFORMATION WEBSITE: http://fr.wikipedia.org/wiki/Tour_Triangle

PROJECT TWO: Paris Rive Gauche



Red line is larger project area. Red dot indicates location of tall building cluster.

PROJECT TYPE: Mixed-use district, with tall building cluster (Masséna Sud, Masséna-Bruneseau)

LOCATION: Left bank of the Seine, 13th arrondissement, south of Gare d'Austerlitz to the *Boulevard Périphérique,* and east of the rail lines serving Gare d'Austerlitz

HEIGHT: Undefined; conceptually up to 180 meters (about 590 feet)

STOREYS: Undefined; conceptually approximately 50

USE: Office, limited retail

DEVELOPER: SEMAPA

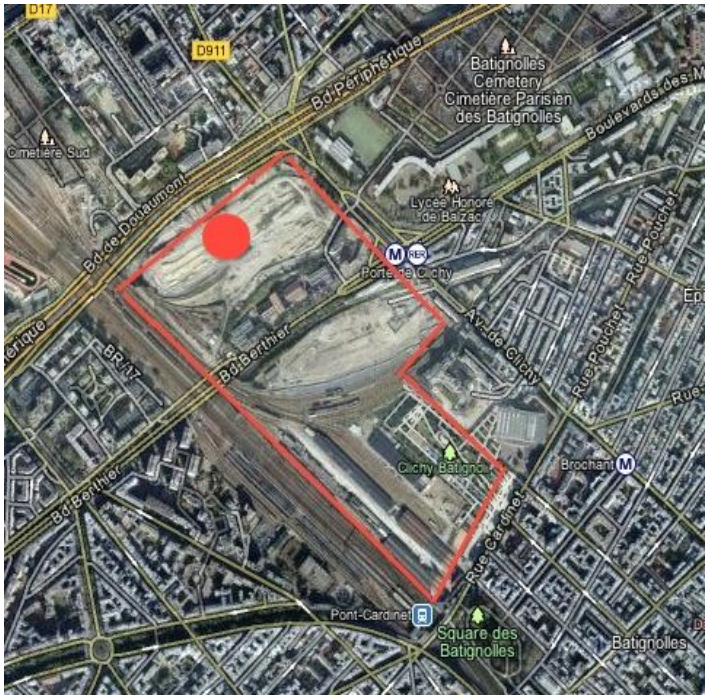
ARCHITECT: Yves Lion (Coordinating architect; building architects not selected)

STATUS (2012): Master plan

PROJECTED COMPLETION: Unknown

PROJECT WEBSITE: http://www.parisrivegauche.com/

PROJECT THREE: Clichy-Bagnolles (and Palais de Justice)



Red line is larger project area. Red dot indicates location of tall building.

PROJECT TYPE: Mixed-use district with several buildings as tall as 160 meters

LOCATION: North of Square de Batignolles, 17th arrondissement

HEIGHT: Up to 160 meters (525 feet)

STOREYS: 48 (approx.)

USE: Office (88,500m2)

ARCHITECTS: Renzo Piano (Palais de Justice), various (other buildings)

DEVELOPER: Consortium: City of Paris, L'Etablissement Public du Palais de Justice de Paris, et al.

STATUS (2012): Some buildings under construction; architect/designers announced

PROJECTED COMPLETION: 2017

PROJECT WEBSITE: http://clichy-batignolles.fr/le-projet/le-futur-palais-justice-et-la-police-judiciaire/futur-palais-justice-paris/futur-palais-ju

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xiii Herzog and de Meuron website, project text. http://www.herzogdemeuron.com/index/projects/complete-works/301-325/307-triangle.html Retrieved 2012-02-26.

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xviiihttp://www.telegraph.co.uk/news/worldnews/europe/russia/6223035/St-Petersburg-world-heritage-status-threatened-by-skyscraper.html

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