The Architecture of Knowledge from the Knowledge of Architecture

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At the verge of the crisis of production and knowledge, the discourse of university has shown how a modernist theoretical insight upon the nature of subjectivity could have been integrated with a social concern. It is this concern that also signifies the evolution of modern analysis throughout the inquiry of the socio-cultural and political collectivity. The discourse of university in the reinterpretation of the modernist production and knowledge, in that sense, not only gives way to understand the societal volatility because of the problems of disintegration but also reveals what is the real behind those problems. Although their coexisting circumstances do not directly correspond to May 1968 events, the engaged conjecture of the Free University of Berlin and Eishin Campus in Japan are two very distinct campus projects that can be analyzed with such an inquiry throughout the discourse of university. They are not only significant to take a traditional or cultural mode of making into account of practicing, as either modernist or vernacular, but also consequential for integrating the social concern of a collective demand that having a very active role in the design progress of those projects. It is such that, the projects give great clues about the re-interpretation of modern mode of making and generation of knowledge under the light of the transformation of subjectivity, as the discourse of university. Accordingly, the novel interpretation of the spatial production that coexists with the changing social and environmental conditions is necessary for the assessment of the information age.

Introduction

The information age emerges with the advancement in communication technologies and media, and with the revolutionary means of making all effecting the dynamic relations of individuals and the society in the production of meanings. By superseding the place of knowledge, information, thus, represents the transformation of the modernist internal, structural, and systematic organizations of society and the state, including institutional changes. This requires an ideological, hence, a critical gaze towards the hegemony of the networked relations of knowledge, production, and consumption. The question of power besides the challenge of hegemony, accordingly, is still relevant whether it is engaged with the condition of architecture throughout the considerable shift in the theoretical and epistemological set of values. So, the crisis of modernism, here, is a considerable lesson, as an aftermath, that can be reinforced better as a legitimate culture of production and knowledge with 'the discourse of university'[1]. It is because that the experience of modernity is still legitimate with some of its merits that further make

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 1. See J. Lacan, *Écrits* (New York; London: W.W. Norton & Company, 2006).

the theoretical and practical actions even possible in the information age according to some of scientific or social principles. In this respect, the discourse of university carries consequential meanings in the re-interpretation of that modernity that may give the vestiges of scientific inquiry upon knowledge, which had missed the insights upon the nature of subjectivity in the volatility of those collective beings.

The agents of society in "the discourse of university" are historically destined to provide an alternative mode against the hegemonic faculties of the dominant order. The discourse of university, respectively, corresponds to an endeavor for the varied domains of theoretical excursions throughout the alteration of the scientific inquiry with the discourse of society. That also betokens for an epoch focusing on the autonomy of space, taking into account for the user demands in architectural praxis that have been reflected both on the design methods, and their implications. Looking from the lenses of the information age, then, it would be meaningful to come up with such spatial practices of knowledge production due to the cultural domain of modernity yet integrated with a social concern over the particular demands of the agents.

Modernity can be seen as the initial epoch of mass production that has been successfully distributed through the different geographies of practices. Engaged with the practical solutions of Taylorism, mass-production can be regarded as the practical result of scientific inquiries over the rules of nature that have been investigated through the age of industrialization. That gives concrete results upon the solutions of material practices including the field of architecture. The pragmatic approach of the mass-production in coming years, however, had some shortcomings of the rigidities of production and the problems in the roles and classification of labor heading towards the crisis of 1968 events.

Nevertheless, the revolution in industrial production has had great advantages of developing practical means and solutions grounding for the early modern architecture of the 20th century. Until the crisis of the economic and political conflicts raising the Second World War, the experience of the development of modernity in architecture had great progress. Le Corbusier denotes this progress as the practical revolution of modernity. This transformation is shared on the pragmatic rules of nature; and is conceptualized throughout the solutions of mass-production with an unseen universal scale of civilizational growth ever before:

> *In every domain of industry, new problems have been posed and new equipment created to solve them. We underestimate the extent of the break between our era and earlier periods; it is agreed that this era has brought great transformations, but what would be useful would be to compare its intellectual, social, economic, and industrial activity not only with the period prior to the start of the nineteenth century, but with the history of civilization in general. We would soon see that human tools, the automatic inducers of social needs, hitherto subject only to slowly evolving changes, have just been transformed with a fabulous speed.*[2]

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2. Le Corbusier, *Toward an Architecture* (Los Angeles: Getty Publications, 2007), 293.

Based on the industrial revolution and the survey upon the natural sciences, a certain search for a 'modernist morality' was among the concerns of modernism.[3] Nevertheless, this was what made the modernist approach distant again from being successful especially after the World War II, due to its dependency to the rational mode of making that is engaged with the means for ends of the industrial revolution. Since the early modernist experience was almost the frontrunner of that rationality, the unsatisfied development of construction and architectural technology after the post-war period have revealed the increasing gap of the new scientific inquiry and the new technology, without giving shape to them.

When considering all of the CIAM gatherings, in another case, it is possible to trace out some critical points besides the merits and ideological points that are drawn at the meetings. Even according to Giedion, it is almost apparent to offer a general critique of modernism in the book *Space, Time and Architecture*, as becoming a tradition of making and thinking.[4] By understanding the rigidities in the modernist production and organizations, the resultant contradiction among particularities and universality becomes crucial to learn further from the rise of nationalism and the rise of the owner demands especially after the World War II, heading towards 1968 events.

These rigidities of the universal modernism had been reflected in the production relations and the organization of labor and their social and living conditions. The contradictions have moved to the intellectual and institutional circles; and even led to the upheavals in universities. In May 1, 1968, the well-known labor demonstrations have signified a new epoch that has transformed not only the socio-economic and political reactions accordingly but also initiated many novel theoretical interpretations of scientific and social research as well as the inquiry on the production of space.

The experience of modernity, nevertheless, is still legitimate with some of the merits that make further theoretical and practical accounts possible even in the information age according to some scientific or social principles. With its premises, The Athens Charter, for instance, could still claim its power of collectivity upon practicing. That reminds the necessity of the collective being of executive groups while they have been substituted with the networked consultancy companies and the large business agreement contracts in the information age. Therefore, what could be alternatively suggested in our own age is still a remarkable question.

The role of the institution as a modern idiom, such as 'university', respectively, still carries a consequential place in the major domain of the 'generation of knowledge' as well as in the embodiment of architectural knowledge which is re-substantialized for the spatialization of the scientific knowledge itself. Accordingly, the spatial practices of educational institutions in modern times are engaged to seek for an alternative mode of architecture as a cultural endeavor.

Starting from the late 1960s, the claim of the autonomous practice of architecture within the relations of socio-economic reproduction that are reflected

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3. See also S. Giedion, *Space, Time and Architecture* (Cambridge, Massachusetts; London: Harvard University Press, 2008).
4. Ibid.

on spatial practices, accordingly, will be examined here through "the discourse of university" in the definition of the roles of subjects, the role of educational institutions and the production of knowledge. Two different campus projects: as one is, in Germany, the Free University of Berlin, and the other is Eishin Campus in Japan represent the culture of an architectural mode of making within an epoch of sensibility upon the subjective expectations and social meanings to find out the solution against the erasure of socio-cultural togetherness.

Towards the Theoretical and Practical Shift of Modernism: 1968 Events and 'The Discourse of University'

It is not strange to see the beginning of the contemporary architecture starting from 1968[5]. Because of the shift in political theory, practice and the history of philosophy, the knowledge of making has also been transformed according to the novel theoretical inquiries.[6] The consequential changes have also reflected on the replacement of the collective groups of modern times with the networked organizations of the oligarchic corporations under the relations of intra-national flow of information sharing mechanisms.

In this period, capitalism has achieved a new triumph against/over its precedent weaknesses with a deceptive run away from the material world, to ground the reality of itself. This retraction can be seen as a strategic withdrawal to control the whole substantialization process by the manipulation of evidential facts.[7] Thus, capitalism has reinvigorated its own top-down approach by the logical (computational) belief over certain materiality of the globally networked organizations. This can be seen as a recursion to all intermingled relations indicating a wicked problem that is hard to define and solve at first glance. The condition can be pictured as such: even though, the fact as an input for information can be sensed, it is intentionally manipulated and mutated into the desired form by these networks.

Information, thus, is the germane evidence for decision even though it is altered for the own sake of the power of/over technology as a peremptory force over the tiny data that is processed through the production and formation of objects, nature, goods, and utilities; changing directly the formation and the substantialization of the existent context.[8] It is here to argue that the necessity of a collectivity upon the truth of institutional knowledge, then, is compulsory over that instrumental information. So, it is still in a sense modern in interpreting the scientific knowledge upon the imagination and creativity that makes the universities also consequential. The social aspects of universities, respectively, are

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5. M. K. Hays, "Introduction," *Architecture Theory since 1968* (ed.) K. Michael Hays (Cambridge, Massachusetts: The MIT Press, 1998).

6. Ibid.

7. This means that there is a polymorphous production process in the information age.

8. See also the book of P. Deamer, *The Architect as Worker Immaterial Labor, the Creative Class, and the Politics of Design* (ed.) Peggy Deamer (London; New York: Bloomsbury Academic, 2015).

expected to have such clarifications in a collective coherence in the information age.

That is to discuss here that besides the merits of the universal ideals and the representable power of architectural condition, the university, in its modern meaning, has still more potentials with respect to the architectural language that is attributed to it despite of its own debatable conflicts. This is an academic aspect in addition to being an aspect to be challenged with its own declarations on the humanitarian approach. The challenge is still also 1968 events; and their theoretical and socio-political backgrounds, which are closely connected with the condition of modernity, modern architecture, its production, and the production in general. After discussing the conceptual merits of the approach, it is here to remind the opening gap between the architecture and flexible production techniques since then the World War II, which have giving shape to society and culture. As a speculative criticism, architecture, accordingly, may be questionable in its own evolutionary progress for being either eligible to accommodate for the new expectancies, or inevitably dependent to the completely different and discrete additional interpretations of the novelties of production techniques. Therefore, the place of the discourse of university in this discussion is obvious with its re-interpretation of the modernist mode of insights upon the change of socio-economic and production relations focusing on the nature of subjectivity and its environment.[9] It is such that the discourse of university connects the modern

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9. After the 1968 events, many theoretical changes have been revolutionized as implied that are directly related to the everyday life practices and the actions in societies. As a new interpretation of Freudian psychoanalysis, in this new epoch of reinterpretation of social exchange and knowledge, the French psychoanalyst and the follower of Freud, Jacques Lacan transformed his way of inquiry, in this period, under the project of 'psychoanalysis upside down'. See also Lacan (2006), which constitutes the seminal discourse of university among the four discourses. The modern inquiry of Freudian psychoanalysis, in that sense, could be re-evaluated under the lights of four historical discourses as similar to the four archetypes of Jung; and the discourses of Hegel that could gain the meaning of symbolic transmittance among the agencies of the society. It can be claimed further that after 1968 events, Lacan has also changed his focus on language and feminine sexuality in consequence with the rise of subjectivity.

Lacanian psychoanalysis had not been focusing on a Marxian interpretation of master-slave dialectic until the 1968 events; and Lacan himself did not even welcome the initial incidences in early 1968. (The inscriptions for this fact can be found in the eclipsed details of the fifteenth seminar book of Jacques Lacan in Psychoanalytic Act, The seminar of Jacques Lacan, v.15, accessed from http://www.lacaninireland.com/web/wp-content/uploads/2010/06/ Book-15-The-Psychoanalytical-Act.pdf.). If we return then the seminal description of the discourse of university, it may be enough to see the changing role of each agent in the production of knowledge that has been reversed from the discourse of Mastery in the affectation of modalities of the agencies (Figure 1). The place of the seminars as universities had such a great importance further subsuming for the theoretical meanings. Lacan seminally describes the merits of university and knowledge in 'Impromptu 1 at Vincennes' that cannot be found in the books of seminars yet described as an impression by Lacan's own words in 'The Other Side of Psychoanalysis'. In the version of Cormac Gallager's translation Gallagher himself gives a note on the background story of the emergence of four discourses as a result of the reactions of the audience in the notes for the 'Overview of the seminar of 1969-70'. Cormac Gallagher writes:

This seminar took place against a background of the on-going street violence and disruption of public services, which followed the "events" in Paris of May 1968. For Lacan personally it was a difficult period in that he had been expelled from the prestigious Ecole Normale Superieure

scientific knowledge with the scrutiny of collectivity and production to understand better the current age's circumstances in the generation of knowledge and its actions of spatiotemporal practicing.[10]

In Lacanian terms, the role of the institution such as 'university' is also the major domain in the processes of 'generation of knowledge.'[11] The role of the university,'[12] accordingly, provides to examine and judge the codes of the generation of the said socio-cultural and political epoch. By processing information in the social organizations, the discourse of university, then, can represent the existence of collectivity for cultural values. It also points out the bondage for the particularities of things and concepts used to be organized within the desired architecture including its subject-architect and its praxis in recent multi-disciplinary approaches.

According to the discourse of university (Figure 1), in short, the collective of signifiers have turned into the master agent: the society of university, in a way that produces messages or discourse in the production of knowledge. In this respect, the university can be seen as a domain that is producing subjects of knowledge from a mere subject with a log of rudimentary truth. The subject, here, is dominated by a collective knowledge such as modern science; and his/her truth has been transformed with the produced signs and codes.

$$\frac{agent}{truth} \rightarrow \frac{other}{production}$$

S1 : master signifier, S2: the field of knowledge,
$\$$: the split subject, a: object petit a

$$\frac{S1}{\$} \rightarrow \frac{S2}{a} \qquad \frac{\$}{a} \rightarrow \frac{S1}{S2} \qquad \frac{a}{S2} \rightarrow \frac{\$}{S1} \qquad \frac{S2}{S1} \rightarrow \frac{a}{\$}$$

The Discourse of Master   The Discourse of Hysteric   The Discourse of Analyst   The Discourse of University

Figure 1. *The Four Discourses of Jacques Lacan*
Source: Author's composition from Lacan (2006).

and had been confronted with the refusal of some of the most talented members of his School to go along with his Proposition on the formation and recognition of psychoanalysts.

His response was the production of the four discourses, which cast a cold eye on the underpinnings of a society, which has abandoned its foundations. The University, with the revolt of the students, offers the clearest example of what has gone wrong. But matters cannot be righted by the Hysterical dramatics of the protesters which will only lead to a reinforcing of the discourse of the Master. Hence, an attempt to re-articulate the position of the Analyst in terms of a discourse may contribute to the amelioration of the situation by tackling it from the reverse side.

(See also Lacan, "Psychoanalysis upside down. The Reverse Side of Psychoanalysis. Book 17," 2001).

10. See also G. A. Sargın and A. Savaş, "'A University is a Society': An Environmental History of the METU 'Campus'," *The Journal of Architecture* 21, no. 4 (2016): 602-629.

11. Lacan, *The Other Side of Psychoanalysis. The Seminar of Jacques Lacan, v.17* (trans.) Russell Grigg (New York: Norton, 2006).

12. University can be placed as the agent designating the collective battery of signifiers in the production of objective knowledge, in Four Discourses of Jacques Lacan. Op.cit, Lacan, 2006. University is also a socio-political term here representing the collective of intellectual university society during and after the 1968 events with respect to Lacanian Seminars.

It has such a consequential place, then, to evaluate the production of university environments not only with the mere schemata of the discourse of university taking into consideration of society and the learning subject but also the background story of psychoanalysis itself getting been transformed in that progress of volatilization and revolution as well. In this respect, some of the neo-modernist approaches as in the case of the Free University of Berlin during the epoch of 1968 events can be seen as one of the frontrunners of the mediation between the knowledge of architectural making and the new way of envisioning the social, cultural, and historical contexts. This idea can also be disclosed by the words of Hays, yet with a strong predilection of making an autonomous architectural practice as:

> *Certain criteria guided the choice of material in this anthology and, equally, characterize what I take to be the distinguishing features of architecture theory since 1968. First and foremost, architecture theory is a practice of mediation. In its strongest form mediation is the production of relationships between formal analyses of a work of architecture and its social ground or context (however nonsynchronous these sometimes may be), but in such a way as to show the work of architecture as having some autonomous force with which it could also be seen as negating, distorting, repressing, compensating for, and even producing, as well as reproducing, that context.[13]*

This also reminds for the endeavor of Christopher Alexander in Eishin Campus project,[14] on another side, especially focusing on the autonomy of architectural practice with an aim of the environmentally sustainable tectonics of space in the practice and generation of architectural knowledge, but still encountered with the problems of mass production.

The Free University of Berlin

The Free University of Berlin has revealed a peculiar interpretation of modernity in the post-war period. After the attentive CIAM experience that had been active in urban design especially before the war, it is such an important and exemplary project of contemporary campus design in the last half of the century. With the claim of being humanized campus environment formed by its users with an alternative educational approach after the post-war period, the Free University of Berlin shows a fine outcome of the new interpretation of scale in the modernist mode of producing environments in between singular architectural works, and the planning of urban plots and blocks. With respect to this, the project gets a role of infrastructural development between the plot and the society that it would

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13. Hays, "Introduction," 1998, 1.
14. C. Alexander, H. Neis and M. Moore Alexander, *The Battle for the Life and Beauty of the Earth: A Struggle between Two-World Systems (*New York: Oxford University Press, 2012).

communicate. It is the idea of 'Stem,'[15] in that sense, not only taking into account for the user and social community but also generates a flexible use of the modest modernist interpretation of the tectonic aspects. The flexibility can be defined in such a tangible condition that the structural elements has been decided as demountable so that any change in the needs of space, tectonic aspects and structure could be responded with that decision.

> *We are concerned, not with 'architecture' or 'town planning', but with the creation of environment at every scale… The problems which we face in making our world are entirely new, for our society is entirely new… The concept of society towards which we strive: that of a completely open, non-hierarchical co-operative in which we all share on a basis of total participation and complete confidence… The realization, for instance, that the scene of action of reality is not a three-dimensional Euclidean space but rather a four-dimensional world in which space and time are linked together in-dissolutive sets our civilization apart from any others.[16]*

Shadrach Woods, one of the designers of the project, declared that the reality of changing perception of the world had been thrown into the relativity of things and subjects in time. Accordingly, the project realized shifting spatial production of changing scale and approach towards the practices of the built environment. So, the Free University of Berlin Campus carries the claim of being an alternative approach of modern designing – to show its capacity to accommodate the flexible kind of approach towards the produced space – interpreted later by its users. So, rather than directly dictating its functional propositions onto the user, it is designed hypothetically and intentionally as a building complex integrating the similar architectural qualities of modernity altered at the turn of the new mode of planning. What can be regarded as a potential in this designing approach of larger scale building complex within the smaller scale urban land is the elegance of this modernity having been carried through the spatial practice after the world war period.

Though similar to the idea of autonomy of the spatial production in the creation of environments as changing habitats, the design is rather humbler and introverted in its character of the architectural formation. So, it carries the idea of the refined instrumentality of architectural spaces opening-up new possibilities to its users rather than being a monumental structure or a mythical self-standing form. Nevertheless, just with this aim, it carries a monumental approach of being socially, and even politically conscious.[17] With this reclusive approach in

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15. Architectural Association, *Free University, Berlin: Candilis, Josic, Woods, Schiedhelm* (London: Architectural Association, 1999).

16. A. Tzonis and L. Lefaivre, "Beyond Monuments, Beyond Zip-a-tone, Into Space/Time: Contextualizing Shadrach Woods's Berlin Free University, A Humanist Approach," in *Free University, Berlin: Candilis, Josic, Woods, Schiedhelm* (London: Architectural Association, 1999), 118-141.

17. See also G. Wagner, "Looking Back Towards the Free University, Berlin," in *Free University, Berlin: Candilis, Josic, Woods, Schiedhelm* (ed.) Architectural Association, 14-23 (London: Architectural Association, 1999), 118-141.

language, however, it can still be disputed that the design could further provide much more potentials of spatial experiences and a new phase for a cultural and aesthetic emancipation just to left behind the modern mass production that had already been experienced.

Apparently, it becomes also questionable that could a university space as well as its organizational system and the provisional production (of intellectual, physical, spatial) offer spatially novel environments; and even suggest some actions to the society. At that point, the standardized approach of the traditional 'precedents' of modernism becomes an inquiry to clarify whether the production of space could be transformed into the discoveries of new state spaces accommodating for the possibilities of other mode of substantialization in between thought and practice, between form and matter. As a precedent part of an idea of revolution that is discovered essentially in 1968 events, the mode of designing in the campus environment would show us the signals of being 'revolutionary' for future projections.

But looking from the larger scale architectural production that is integrated with an infrastructural development, as the designers called as "Stem", the building can also be seen within the rise of the sign value and the symbolic representation of the cultural change just stabilizing a modernity preserved against the euphoria of the postmodernist sign. In that sense, the predilection towards the modern mode of making can be seen as correlated rather with a cultural endeavor upon the user inquiry. In other words, the seminal attempt at the Free University integrates the modern culture of making with the nature of subjectivity of users as the battery of suggestions on the usage of space, which can be reconstructed through the analysis of the discourse of university.

To understand better the necessity of collective of modernist knowledge as a rehearsal, on one side, the return to the early history of changing modernity under the influence of futurism and the humanitarian approach in design may better dwell on the new scale of designing an urban environment after the inherited culture of the Athens Charter. Taking consideration into the Frankfurt Römerberg scheme, Woods, Josic and Candilis (Figure 2), have shifted the urban design paradigm into the possibilities of a development within a suburban environment. As a response to the lost conviction upon the collectivity with the absence of the urban context, the repeated patterns of that neo-futuristic scheme of the group members of Team X have been generated through by their compact design campus proposal, the design of the Free University of Berlin in 1973.[18]

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18. K. Frampton, *Modern Architecture: A Critical History* (New York: Thames and Hudson, 1992).
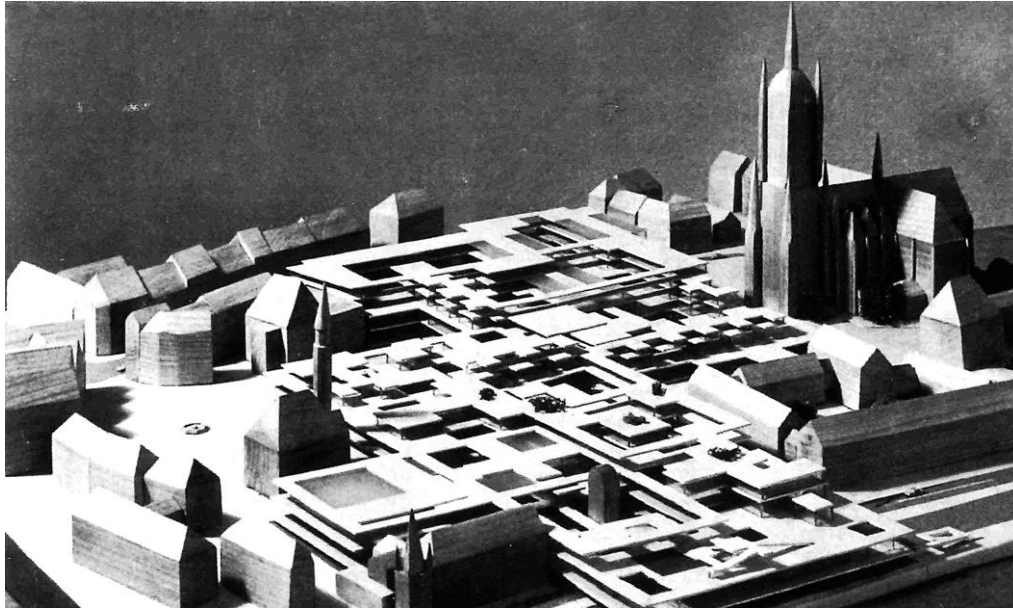
Figure 2. *Urban Design Proposal of Frankfurt Römerberg Scheme by Woods, Josic and Candilis, 1963*
Source: Free University, Berlin: Candilis, Josic, Woods, Schiedhelm (1999): 112.

The humbler modernist style in the Free University, hence, shows itself in the design as being organized only in two-story mass as well as in planar schemata implying for the organization of a matrix formation. The major impact of the design in that new epoch is the integration of a modest modernist style with the reformed principles of decision-making taking into account for the social and utility aspects as a whole. Being a project that is developed in a progress of competition of different phases, the authentic proposition focuses on a physical interchange of different faculties under the same proposal of interconnection of 'Stem(s),'[19] on the other side.

After winning the competition, and when the first phase was completed, the designers declared the direction of the spatial organization. Accordingly, it had still some considerations upon distinguishing main activity zones and academic areas for resting that are all connected, nevertheless with long internal 'streets' that are organized around the courtyards (Figure 3). That gives the ultimate recipe for the 'Stem', the connected grid that is matrix formed, which can also be described as a web-like scheme. It was such a proposal that the whole shape of design had been designed to communicate with the environment throughout the openings and voids of non-built areas. So, the spaces at the ground zero-level are organized through the vestiges of the internal streets that are organized according to the proposed 'Stem' connecting different academic areas.

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19. Candilis, Josic, Woods and Schiedhelm, "Architects' Statement. Competition Project 1963-64," in *Free University, Berlin: Candilis, Josic, Woods, Schiedhelm* (London: Architectural Association, 1999), 25.
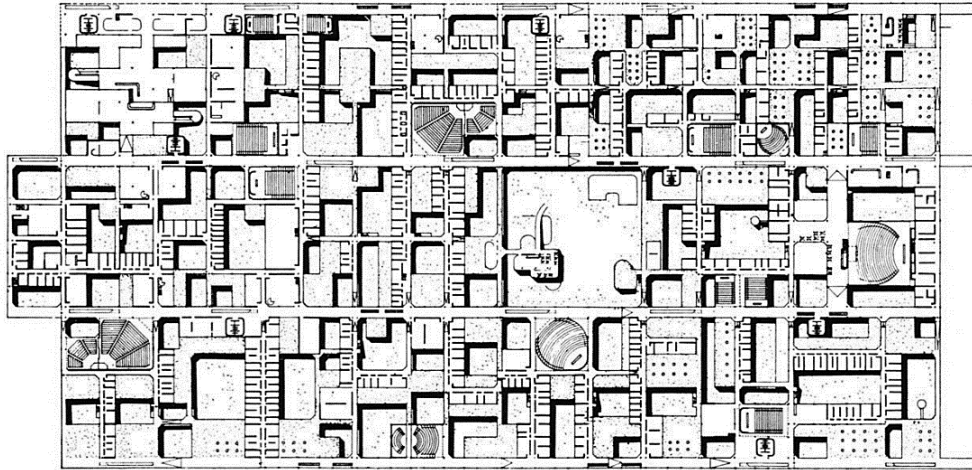
Figure 3. *The Free University of Berlin, Plan of Upper Level, 1963-64*
Source: Free University, Berlin: Candilis, Josic, Woods, Schiedhelm (1999): 28-29.

As the most outrageous aspect of the design, a group of students surveyed on the historical experience of social share of space throughout the excursion of the idea of 'street' in the old city beyond the modernist vulgarity.[20] The street was so important here to construct a critical point of view against 'the erosion of social life' in response to the industrialization of modernity. So, the idea of integrating street as a part of contextual exploration into the project can be seen as the pioneering force for the new interpretations of modernism, defining a scale of urban fabric *per se* for social interaction. It can be declared that with its voids, non-built environments of courtyards and streets, the university design has defined a new social ground for its users especially for the students so that it can be distinguished from the tradition of modernism. Just as in the transformation of modern psychoanalysis in a master-slave dialectic of Marxian thought upon the production and enjoyment of surplus value, the historical analysis of the street by the students occupy the mastery of the discourse of university. It is such a mastery over the construction of spatiotemporal experiences, as a *jouissance,* and their production of subjects as the ultimate product of that knowledge generation peculiar to the Free University of Berlin (Figure 4).
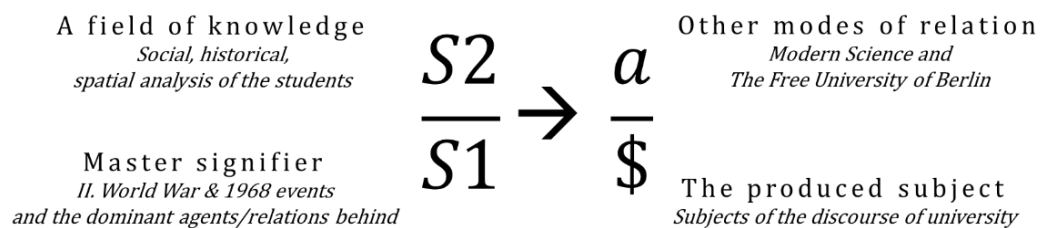
A field of knowledge
Social, historical,
spatial analysis of the students

$$\frac{S2}{S1} \rightarrow \frac{a}{\$}$$

Other modes of relation
Modern Science and
The Free University of Berlin

Master signifier
II. World War & 1968 events
and the dominant agents/relations behind

The produced subject
Subjects of the discourse of university

Figure 4. *Re-iteration of the Roles of Agencies according to 'The Discourse of University' (Author's own Analysis)*

20. G. Feld, "Shad's 'Idée Fixe': Berlin Free University and the Search for Principles of Organization." in *Free University, Berlin: Candilis, Josic, Woods, Schiedhelm* (ed.) Architectural Association, 104-117 (London: Architectural Association, 1999).

The 'Stem' had also the mission of developing an infrastructural solution that has been integrating the city and society with the complex itself. However, that was much more challenging than the expected since the environmental and economic conditions should also be on the way that had been expected for. The designers such as Schiedhelm also criticized the fact that the project had been designed with restricted sources of funds and property rights.[21]

The same problem of external forces showed themselves similarly in another project with the form of the rigid conduction of construction that made Alexander ponder upon the principles of autonomous production as well. Although the project of Eishin Campus, in that respect, was interpreted in a very different language, the concerns upon the assimilation and the integration of socio-cultural transformation have been persisting as the common merits of design that can be evaluated under the light of the discourse of university.

Eishin Campus in Japan

The intention behind the design progress might sometimes be far consequential and germane to scrutinize than its formalization practices. Eishin Campus designed by Christopher Alexander and built in Japan, carries such a meaning as not only being a part of interactive design decision mechanism together with its ultimate users but also with the concern of environmental awareness that is integrated with the vanishing cultural values of making in everyday life.

In the 1980s, the Japan economy has been transformed with a competitive industrial network that is integrated to the international market, with a JIT (just-in-time) approach,[22] after the crisis of Taylorism. This, however, resulted in the displacement of the capital in many new geographies including Japan as well with the extent of the vestiges of the popular culture. As a particular frontrunner that is resistant against the populism, conversely, Alexander's experimental approach pursued a new challenge. This design challenge, hence, was to testify an environmental approach but also to tout for a subversion grouching against the mass-production and its mundane procedures in construction (Figure 5).

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21. M. Schiedhelm, "The Berlin Free University Experience," in *Free University, Berlin: Candilis, Josic, Woods, Schiedhelm* (ed.) Architectural Association, 96-99 (London: Architectural Association, 1999), 97.

22. M. Castells, *The Rise of the Network Society* (Cambridge, Massachusetts: Blackwell Publishers, 1996).
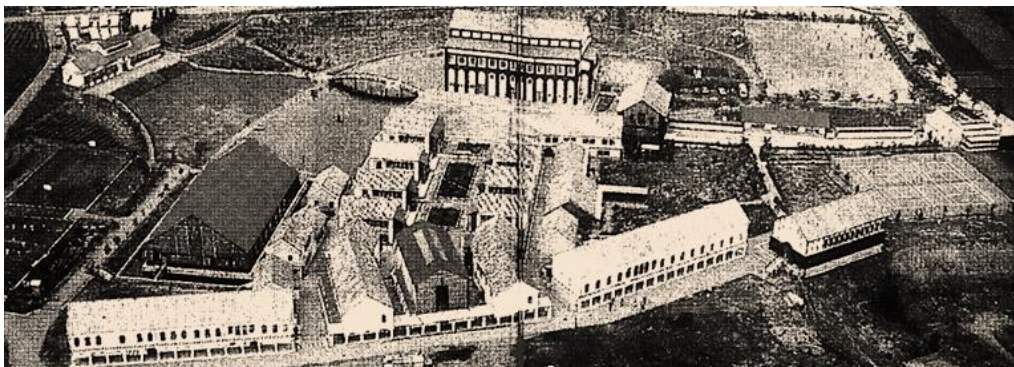
Figure 5. *The Campus of Eishin Gakuen in Japan, by Christopher Alexander, Realized in 1981-1989*
Source: Alexander & Neis & Alexander (2012).

Looking from that perspective, the human environment, which would be a part of emotional as well as a social life, required an alteration-in-change as a contradiction in the built practice. The users' predilections about the environmental experiences directed to the site were the common special values and forces that drive the design as similar to the Free University, interestingly, as a return back to the precedent tradition of making in everyday life. Accordingly, by organizing the college buildings around the green courtyard with the arcaded pattern of the entrances of buildings, the design of the Eishin High School (completed in 1985) was extended into a university campus (1981-1989), which is organized through the series of colleges that was added in 1987-1989 (Figure 6).

So, the resistance against the losing pattern of memories that is fading away has provided a new understanding of tradition as a project identity[23] that is described; associated with a collective enjoyment of social being. Having been able to simulate a romantic approach of the wishful past that is engaged with the shared cultural values, such kind of approach could gain resistance against the popular culture.

The discussion, however, becomes even more conditioned that is based upon the bases of design-decision mechanisms beyond the choice between the old and new, creating a contradiction by itself. Alexander describes the major dispute over the two world systems comparing the start of the any mode of mass production of the dominant with the desired effect of the autonomous production. So, there are two systems that Alexander divides the world views into basically two; and features them as either being oppressive in his description of the "System B"; or as liberalizing the thought and practice in the "System A."[24]

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23. Castells, *The Power of Identity* (Malden, Massachusetts: Blackwell, 1997).

24. Alexander, Neis and Moore Alexander, *The Battle for the Life and Beauty of the Earth: A Struggle between Two-World Systems,* 2012.
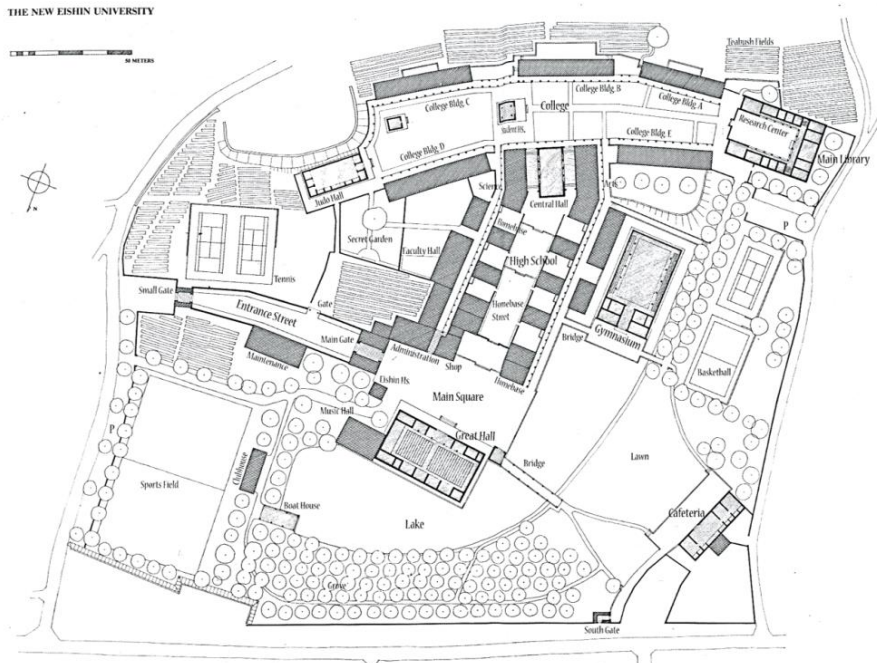
Figure 6. *Site Plan of the New Eishin University in Japan, by Christopher Alexander, after 1989*
Source: Alexander, Neis and Moore Alexander (2012).

Accordingly, the battle against the well-being of the cultural and natural environment is advocated on the side of "System A", as has been opposed to the "System B" in the aspects of size, speed, profit, efficiency, and the numerical productivity.

> *System-A is a system of production in which local adaptation is primary. Its processes are governed by methods that make each building, and each part of each building, unique and uniquely crafted to its context.*
> *System-B is, on the contrary, dedicated to an overwhelmingly machinelike philosophy. The components and products are without individual identity and most often alienating in their psychological effect.*[25]

It can still be claimed, however, that by the excursion upon the possible synthesis in between the "System A" and the "System B", 'the fourth revolution of production[26] can be seen as grounded upon the evolutionary way in gradual change in kind of making and utilizing structures. What makes the project invaluable here, accordingly, is the series of some conceptual principles that are derived through the reconstruction of knowledge in the flow of information of the post-industrial mode of production. Just to know about the principles that are drawn in the experience of humanizing this campus experiment into the knowledge of designing, it can be reasonable to remember the notes of Alexander.

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25. Ibid.
26. K. E. Drexler, *Radical Abundance: How a Revolution in Nanotechnology will Change Civilization* (New York: BBS Public Affairs, 2013).

The nine corresponding operational elements that Alexander introduces, respectively, focus on the unity of the building with its essence adapted to the environmental condition.[27] Significant to provide a collectivity in the evolutionary conditions as a generative progress, any natural being would be reconsidered in a mode of making mastered by craftsmanship according to him. This can even be efficient to envision in the dynamics of information age to construct a collective reality to deal with the changing facts.

> *… In support of this new production system, there will need to be sweeping changes in human organization. These changes of organization will provide for involvement and coordination among the interested people and skilled workers, and thus give a level of deep involvement in decision-making by all concerned. Together, they will act on adaptation.[28]*

Living in the new technologies of intelligence and production enabling the possibilities of hyper-technological advances of coding immediately, these principles are concrete to re-evaluate them even in the condition of atomically precise manufacturing[29] today, just to close the described gap between the "*techne*" and the theory of architecture then:

> *… A major focus on the fragility of human beings and whatever enhances their well beings will be respected. This will always be considered as a source of feedback and evaluation.*
> *So, too, care must be given to all animals, insects, and plants, meadows, forests, ice-floes and other natural habitats. This intense care for all living beings and systems will be a priority.*
> *…A generative process (something like a pattern language) will always be seen as the key dynamic framework that gives generic instructions for all planning, design, and construction.[30]*

So, it is here to criticize the harsh incommensurability of the mechanistic geometry of the 20th century mass production that is engaged with the war industry, which disables the local adaptation of the built mass into the hosting environment.[31] The Eishin Gakuen Campus can be regarded as a place-making activity against the rising power of the dominant mass production again, rather by taking into consideration of the discourse and reality of a certain collective approach. In that respect, it can be said that the identity of campus again adopts the qualities of a common traditional inner street from the everyday life of Japan.

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27. Alexander, Neis and Moore Alexander, *The Battle for the Life and Beauty of the Earth: A Struggle between Two-World Systems*, 2012.

28. Ibid.

29. Drexler, *Radical Abundance: How a Revolution in Nanotechnology will Change Civilization*, 2013.

30. Alexander, Neis and Moore Alexander, *The Battle for the Life and Beauty of the Earth: A Struggle between Two-World Systems*, 2012, 8-9.

31. Alexander, Neis and Moore Alexander, *The Battle for the Life and Beauty of the Earth: A Struggle between Two-World Systems*, 2012.

Since it is a challenge to interpret the project in the context of Japan, it is extremely difficult to find any relation that hardly repeats itself in European modernity except the idea of 'Stem' that is organized around the streets and courtyards, to be scrutinized under the discourse of university.

Discussing Architecture of Modernity within and without:
The Spaces of Condensed Transference

The reality of 'the science of modernity' in practice makes us to re-concern about the hybrid solutions in the Free University of Berlin. It just evokes some discussions upon the theoretical manifesto of the discourse of university in the late period of the 1960's with the precedent spatial experience of futurism. The theme of freedom is the key term, in that respect, to think about the institutionalization of modernity in university and its spatiotemporal practices. Then, it is possible to make a series of analytic assumptions in the appraisal of the university space as a spatiotemporal experience.

Universities are conjunctive spaces of transition of accumulated knowledge that is transferred through the sublime substantialization of information meaning into the subject. They produce subjects that reproduce the connected flow of information into the knowledge that is charged with the collective responsibilities. Universities are the spaces for the transference between circulating knowledge through the target of science; the object of information (represented for the ultimate bastion of the people, with collective shares). Thus, the evidence is legitimized through the networked compounds of knowledge; through the faculties of perception, understanding, and judgment; and is transferred into the inherent information that is entangled with ideological competitions and the free will of the subject. The free will volatilizes the desire to attain the universal truth by questioning the world, the life, the reality, the existence. Universities are the sites placating the free will by the substantialization of thought through the encounter of flowing relations of life, matter, the motion of subjects and things.

Therefore, universities are territorialized by the desire of the scientific search for knowledge – by questioning the truth; and they have constantly been de-territorialized by the scientific information, subjects of knowledge, and flow of signs of communication. Since the ultimate agent – produced – is the subject itself, they construct the representational kernels of subjects in connection with the real; and present them to the realities under the idealized principles. So, the universities of today are the spatiotemporal practices of idealization – the free will – for truth by the transformation of science into knowledge or information; and are always challenged by the realities that having been shaped mostly by ideological interactions of society,[32] culture, economy, and politics.

Cultural (re)production of modernity is one of the major issues that having been shared the same common ideals of truth and production of knowledge. The

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32. See also Sargın and Savaş, "'A University is a Society': An Environmental History of the METU 'Campus'," 2016.

emergence of the modern 'University' by Humboldt postulates and legitimizes[33] this claim. The desire of providing idealized spaces of knowledge, however, is constantly challenged by the ideologies of the sovereign production relations and the economic conditions. This tension can reveal itself in the embodiment of the real, in the background stories of the spatial practices of campus design and construction processes as well as in their history of architectural practice and theory with stylistic and cultural concerns. Therefore, it can be said that the idea modernity, hence, is established first according to the modern ideals, then, is challenged by the formalist-determinant innervations in a new mode of mass production.

It is possible to describe, then, the spatial-temporality of university as the site of the condensed transferences. The condensed transference describes the transitions between the ideals of humanity and the motion of the reality of the age. When we observe the precedent examples of the Free University of Berlin, respectively, it inevitably compels us to discuss the issues of modern architecture with its existence, its principles, and relation with the historic urban environment. With its alterations, contradictions as well as the re-visited principles of the CIAM, Team X's members' experience in the Free University of Berlin, nevertheless, differed from its lacking urban context with its construction process. That may still explain, accordingly, the encountered obstacles during the integration of the infrastructural development of the university to the immediate environment.

The hostility in the Free University of Berlin (as the similar concern can be seen in the creation of Eishin Campus) for the expectancy and the issue of utility by their users – academician and students are appraised, and taken into consideration as the primary factor. What is the most interesting issue to be discussed here is the additional library part in the Free University of Berlin (completed in 2005), for example, with a contemporary language that is settled within the courtyard of the modernist plan as a result of that flexible concern of usage.

Akin to this, the contemporary experience of Norman Foster at the Free University of Berlin (Figure 7) corresponds to a conjunction of the epochs emerged with the integration of his additional library part placed in one of the main courtyards. Altered from the experience of Candilis, Josic, Woods, Schiedhelm to Prouvé's façade design of steel Corten inspired by Le Corbusier's 'Modulor,'[34] and finally to Norman Foster's additional library part, the university's spatialization practices signify an evolution of making throughout the ages as a result of that described challenge.

Consequently, the production of institutional knowledge and its transformation into the data features of information are issued as essential discussions here as whether they can be reconstructed into the spatiotemporal knowledge or not. More clearly, it is rather to read the parallel relation of the rise of the scientific knowledge of the institutional endeavor of universities. As the sites of knowledge production, the universities are seemingly transformed with the

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33. W. von Humboldt, *The Limits of State Action* (London: Cambridge University Press, 1969).

34. The data is accessed from https://www.fosterandpartners.com on 16 December 2017.

rise of technological production means and its information, which is superseding the knowledge production of the modern institutionalization.

Figure 7. *Additional Library of the Free University of Berlin, by Foster+Partners, Completed in 2005*
Source: Foster and Partners (2017).

What turns us concerned about the modernist planning and making is also related with the reality of the contemporary condition and its competitive ground so that it makes sense only when to be understood in the urban dynamics of society, economy, and space. This is another clause to be engaged with such kind of an expected effect of knowledge and of production that only exists within the globally significant universities in the 21st century. Just to get a little help from the dynamics of the university rankings of the recent decades, it becomes significant to understand the spatiotemporal production of institutionalization in the dynamics of urbanization, in connectivity with the desired praxis. Which can be inferred from the analysis of Castells & Hall with the insights of the sites of technology production,[35] the previously related knowledge-information conversion is still relevant in the dense environments of Boston, the New York City or in the state of California in the United States that are engaged also with the successes of the universities settled in.

Integration of the campus environment with the city as a critical discussion is relevant to reconsider the contemporary condition under the new concerns of information flow and speed but also to understand the role of the architect in the changing master-slave relationship. Evaluated in the hegemony of the technology and economic development, the described areas generally with "in-house

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35. M. Castells and P. Hall, *Technopoles of the World: The Making of Twenty-First-Century Industrial Complexes* (New York; London: Routledge, 1994).

universities" are also depended upon the external funding sources as Castells reveals clearly.[36]

So, when evaluating the universities with their near environments, the current age requires to understand the ideological differences; and to reminisce about the densification strategies that can be distinguished between the different geographies. The driven suburbanization of the post-war period even in the case of the Free University for new architectural practices can be seen as an obstacle, in that sense, just preventing further successes of the described institutionalization of modernity via the proposal of the described infrastructural integration. Even though it can also be seen as a utopian desire to volatilize a new urban transformation around, the regional district that the Free University first located within can rather be evaluated as a reserved suburban part of Berlin. With the lack of density of housing, or any industrial - central business district areas, cultural, recreational, service and maintenance facilities, besides the restricted fund sources the near environment has had constrains for further development.

"Stem", as a pedestrian stand integrating the city with the campus, was imagined upon the interaction of the servant and the server, the city and the campus[37] socio-economically and culturally. Nevertheless, the faint architectural projections that could only be reflected in the complex building structure have not made further progress in the transformation of the environment, inhibiting further data facilitation to the campus. As a critical reconstruction of the experience in the campus design, the contemporary condition of the campus now can also be described as located at the green suburban housing district with some social and cultural facilities around. The campus can only be nourished by the adjacency of European Culture Museum and Ethnology Museum today; and the closest sign of the active production or service environment can be enlisted only as the latest additional parts of the university. The series of courtyard organizations in the campus to create a collective unity representing the formal organization beyond the segregation of classes has contradicted later with the further environmental development of the new 2-3 story-high houses. The new housing developments, hence, provide ample evidence to explain what could have been a factor of mitigating the further integration of the idea of campus with the urban fabric. By looking from the reality of the contemporary condition of 'global' universities, it seems rather significant, then, to organize the environmental development of universities in relation to the possible revolutionary flux of the local dynamics with certain socio-economic and cultural projections.

From an academic/professional perspective, it is clear that universities and the new technology campuses of the companies seem intricately contradistinctive and yet dependent to each other. With the rise of the information age, the increasing impact on the technology transfer, respectively, reveals the necessity to regard the special zones of such developments. Having the worldwide known universities around, Silicon Valley and Boston Route 128, for instance, are among those most remarkable sites of university-company relationships. These examples can be

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36. Ibid.
37. Tzonis and Lefaivre, "Beyond Monuments, Beyond Zip-a-tone, Into Space/Time: Contextualizing Shadrach Woods's Berlin Free University, A Humanist Approach," 1999.

increased with many other cases from Far East, or even from Turkey such as ODTÜ Teknokent, and CYBERPARK of Bilkent University nearby even though the growth scale and the level of technology transfer cannot be compared compatibly with the precedent cases.

Relatively, the role of the architect, as the designer-subject, in this respect, in the design of environments should also be reexamined through the critiques and the potentials that are presented. Ideologically speaking, the further interpretation of the campus environments by their users seems revolutionary even against the discussion of class differences and the over-specialized labor specializations after 1968. However, the coexisting potentials of planning and the progress of culture seem to have been missed such that the progress has shown the weaknesses and possible crisis even about the role of the architect that is apparently attenuated. In some way, the rise of the service sector and the upsurge in the built environment has recovered the role of the architect to some extent with the series of expectations upon the working plans in the information age. Nevertheless, the mere expectations on the immediate detailing as well as the roles of the subject within a socio-cultural endeavor turn the architect solely draw something and yet still be engaged with the advertisement culture of the spectacle.

Conclusion: Towards the Inquiry of the Global Universities

Universities across the world in the early twenty-first century find themselves in a paradoxical position... They receive more public money than they have ever done and yet they are more defensive about their public standing than they have ever been... While in some quarters universities are heralded as engines of technological advance and economic prosperity – and developing nations rush to establish more of them in pursuit of these goals – elsewhere they are attacked for being 'self-indulgent', 'backward-looking', and 'elitist.'[38]

The paradox upon the objects of knowledge and their spatial production once again evoke the arguments of the global condition. It is the dominant position of research universities that are majorly settled in the United States with high funding budgets; and some of those in England are again fueled with sponsor-funded fellowships.[39] What constitutes the reality of the educational realm is engaged with the technological and scientific production, on one side, and that is depended upon the capital funding of the externalities. As a result of the changing necessities of the imagery of the information age, the evolution of the MIT campus beginning from 1998 to the early 2000s with the new buildings, in that regard, has a story that best narrates the current tendencies as a model of growth. With this exceptional example of the transformation, the role of investment in this process also shows the dependencies of the desire of research universities aiming to develop.

38. S. Collini, What are Universities for? (London: Penguin Books, 2012).
39. Ibid.

William Mitchell in his book, *Imagining MIT* (2007), starts to explain the evolutionary transformation of the MIT campus with the classical roots designed by Thomas Jefferson under the influence of Classicism, Victorianism, and Taylorism. The desire behind the idea of the first campus design was to integrate a classical style with bucolic green environment just as in the campus design of Victoria University again designed by Jefferson in 1820.[40] Mitchell, then, presents the modern transformation of the campus by Saarinen and Aalto; and arrives to discuss the necessities of evolution of the spatial production that coexists with the creative knowledge production requiring new accommodation, working, studying, even leisure and sports facilities[41]. As Mitchell gives more details, each building that is constructed in the new stage was the end-product of the incentives of the foundations focusing on the search of high technology and its spatial developments to satisfy the programmatic needs.[42] Accordingly, he puts forth that each building in the campus as stand-alone edifices was part of the general development strategy.

Mitchell clearly presents the condition of the information age, accordingly, that pushed the commission of decision-makers at MIT to extend the campus with new architectural environments that are designed and decorated with the capabilities of new informational technologies. This proposes such a model that tries to strengthen the technology transfer between the companies and their built environments at the same time.[43] This strategy, on the other hand, also works in the way to get the human resources (so the power/product of the university) back that is fading away from the campus environments as a result of the appealing economy of high-tech industry/market. The transformation of collective design of university with its users, thus, has shifted towards the larger scale inquiry with the inclusion of the external dynamics to the campus, and the growth of the campus towards those neighborhoods. Mitchell vindicates the idea behind the programmatic extension of the campus:

> *This also represents a crucial shift in the economic role of research universities. In recent decades, they have increasingly served as core components of national innovation systems, centers of high-technology industry clusters, and producers of economic growth and nearby jobs- as in the Silicon Valley area surrounding Stanford, the Route 128 area on the outskirts of Boston, and the biotechnology cluster that has more recently developed in MIT's immediate Cambridge neighborhood. The key mechanism in this is the transfer of technology from on-campus laboratories to nearby off-campus startup companies that are largely run by entrepreneurial faculty members, part-time student employees, and recent graduates. Urbanistically,*

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40. W. J. Mitchell, *Imagining MIT: Designing a Campus for the Twenty-First Century* (Cambridge, Massachusetts: The MIT Press, 2007).
    41. Ibid.
    42. Ibid.
    43. The start-up companies that are specific at the sites of high technology such as Silicon Valley or Boston Route 128, for example, are among the necessary dynamics what are critically analyzed before for the growth and sustainability of research and investment.

> *the complex of new MIT laboratories defines the center of a growing high-technology neighborhood and reorients the campus to it.”[44]*

It shows the evolutionary transformation of the (post)modern way of collective design that leaps into the design highly boosted by external funding. Accordingly, it is a transformation from the production of knowledge of the modern architecture into the mastery of the capital on the institutional desire. However, it can also be seen as distinctively pioneer approach when regarding the collective side of designing at institutional, economic, and regional scale.

Notwithstanding this, Mitchell also reminds the uncertainty and the difficulty of decision-making throughout those evolutionary processes among the confluential togetherness when especially considering the multiplicity of political and economic dynamics. On the other side of the educational realm, according to these, it can be said that the autonomy of the universities is under the threat of the control of state mechanisms or the paucity of the private donations. The examples of the classical type of universities, especially, are having the problems of the scarcity of the research environments as well as the human and funding resources.[45]

Although these result-based expectations have influenced the autonomy of the universities negatively, the freedom in the progress, however, is an advantage of the research since the governments with ruling councils cannot completely control the processes in libraries or in laboratories. Either in the singular or mostly in campus projects, what is significant to learn, then, is the interconnectedness of the spatial continuity in between the common university areas, in between the different faculties as well as the connection to the immediate surroundings as an economic and social infrastructure.

This emphasizes the evolution of the educational organization of the universities into a multi-disciplinary interaction of sciences creating new inter-disciplinary research areas as well as social and economic interfaces. Accordingly, the novelty of the unconditioned behavior 'in-between' makes the priority of the condition and already experienced rules of spatiotemporalities evolve. Respectively, the university space itself still provides the undiscovered relations and potentials of spatial action and the scientific development that is engaged with, as the performative task. The discovery of the dissolution of knowledge back again from the reconstruction of the essential features of things and structures, in that sense, enjoins us to explore the meanings and the knowledge back from the generation of the information, in this convolutional task.

Then, it is to reveal the concomitant transformation of the necessities of spatial production, which coexists with the society, culture, and education through the technological evolution in the information age. The relation of academia with technology and the transfer of knowledge into public and private zones of practices, hence, have more profound traces that ought to be revised when especially regarding the role of the university and the modality of 'collectivity' in the production of the knowledge and the subject of that knowledge as well as the urban/public environment.

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44. Mitchell, *Imagining MIT: Designing a Campus for the Twenty-First Century*, 2007, 99.
45. Collini, *What are Universities for?* 2012.

In the view of these arguments, it is the task of understanding the multiplicity of new design parties and the dynamics even though the transformed mode of collective design cannot be particularly drawn no more as clear as the ones like Lacan's four discourses. Nevertheless, these relationships can be mapped out as the intricate, even discrete, and yet correlational and networked environments of the agencies and their production of space. The new convolutional task of the analytical decision making for the production of space and its knowledge, respectively, cannot be achieved by solely mapping a singular schema or solely one discourse. Conversely, it can only be thrived by mapping the networks and the multiplicity of those interrelations through the exchangeable fertilizations with the matrix of the number of discourses and agencies, as also Flieger asserts.[46]

Analogous to this, the role of the collective decision among the multiplicity of those many parties and reference systems and the ground truth for the design and development procedures in the direction of certain principles are again to be originated, once again, from 'the discourse of university'. Mitchell similarly finishes his words by concluding remarks on the role of the institution, university and the role of urban space in the complex decision making of those foundations while describing the problems of real-time planning and budget-management:

> *Institutional structures that preserve a critical sense of campus history, urban context, and long-range goals can provide effective safeguards against these inherent dangers. These can ensure continuity of architecturally sophisticated thinking, expertise, and advocacy focused on overall campus design-providing, where necessary, the voice of cultural and urban conscience in the though debates that accompany a university's decision making on major capital projects. It helps, as well, to establish budgetary processes that give sufficient weight to long-term value and sustainability and not just short-term targets and constrains.*[47]

The dynamics of information age, hence, still open to be examined with respect to the collective mode of decision making to be based upon some of the merits of modernity as the basis of architectural knowledge. The evaluation of such knowledge together with its social and cultural dynamics necessitates the collective coexistence of executive groups with a control over the informational transformation beyond the pragmatic expectancies of the networked consultancy companies and the large business agreement contracts. The role of the institution such as 'university' in the information age, hence, can still be validated as remarkable concept that runs the spatial decision making mechanisms in those networked and complex relationships.

46. J. A. Flieger, *Is Oedipus Online? Siting Freud after Freud* (Cambridge, Mass.: The MIT Press, 2005).
47. Mitchell, *Imagining MIT: Designing a Campus for the Twenty-First Century*, 2007, 121.

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