Impacts of 'negative patterns' on urban-architectural education: the case of Balikesir

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Abstract: City and its physical environment play a remarkable role in the formation of architects. Thus, how qualities of urban setting are filtered into design projects that are developed in the city, particularly in schools of architecture is of interest. Hence, an excavation through four successive layers: *city, architectural school, design studio* and *student projects* are conducted on the basis of their spatial organisation and architectural features. This analysis follows an historical overview of the morphological evolution of the urban tissue and an overall examination of the curriculum with reference to a particular case study selected from a small town university in Turkey, Balikesir University, Department of Architecture. It is of interest to know whether the deficiencies of the city make a negative impact on the students of architecture since city displays an anti-urban character. The methodology, called 'negative patterns', is adapted from Alexander's pattern language, working in reverse manner.

Keywords: architectural education; urban context; negative patterns; Balikesir; Turkey.

Biographical notes: Murat Çetin has completed his undergraduate and graduate studies in Middle East Technical University, Department of Architecture. He was awarded by the Higher Education Council for a scholarship to conduct his doctoral studies at Sheffield University in UK. He participated in various international conferences and published papers in journals and books. After his return, he taught at Balıkesir University, Department of Architecture and Yeditepe University as an Assistant Professor. He also won a citation awards in one urban design competition and one architectural conservation project competition. He currently teaches at King Fahd University of Petroleum and Minerals.

1 Introduction

The importance of the role of city and places that play on the formation of architects throughout their education is already known. Yet, it is of interest to know whether (or to

what extent) the relationship between the built environment and patterns of urban social life or experience of well-being constitutes the foundations of teaching students of architecture, city as a social and physical organism. It is also significant to know whether or not lack of urban spaces, which are conducive to public life, for sociability, dialogue, urban traditions such as civic community festivals, and also an overall outlook of a shantytown, could directly influence the relation between urban-architectural quality of the life in the city and quality of architectural education in that city. In terms of the relationship between environment and human behaviour (Rapoport, 1988), the impacts of the physical context on how people think and act has long been established by various scholars. Furthermore, the role of the urban context and spatial qualities on how designers, who work in these contexts, think is also of particular interest (Lawson, 1994). One must note that since designers are influenced by their own environment, it would not be totally wrong to assert that design is affected by the environment in which it is conducted. Thus, it is intended to scrutinise the parallels between the concept sensitivity to the culture of daily life in the city and susceptibility to the spatial richness in architectural design projects by young students. To this aim, an excavation through four successive layers; *city, architectural school, design studio,* and *student projects* is conducted on the basis of their spatial organisation and architectural features (i.e., in terms of 'negative patterns'), following an historical overview of the morphological evolution of the urban tissue and an overall analysis of the curriculum with reference to a particular case study selected from a small town university in Turkey, Balikesir University, Department of Architecture.

It is observed that, chronicle spatial problems occur in design studios. These are:

- design of sterile spaces is noticeable

- difficulties in establishing spatial, functional, cultural diversity in architectural designs seem difficult to overcome

- serious problems regarding the relations between pedestrian and vehicular traffic are observed in design projects of students.

Following a series of attempts to review and revise curriculum, it appeared that the problem still continue.

Then it was of interest to know whether the deficiencies of the city made a negative impact on the students of architecture since city displays the character of a décor which resembles nomadic settlement in an underdeveloped geography yet using the elements and components of a modern city. Therefore, we can define our effort to teach architecture in such a city as a struggle against the décor of 'nomadic-modernity'. The city has the appearance of a shanty town. Thus, it can be defined as a city comprised of 'negative patterns' with reference to Alexander (1977). In other words, the city displays an anti-urban character. The method we applied is quite similar to the *modus operandi* in Alexander's pattern language. However, it works in a reverse manner. It classifies the spatial deficiencies occurring in both the city and student projects as patterns. Therefore, they are called 'negative patterns'. Therefore, it would be much more convenient to define this language as 'negative pattern language'. Table 1 illustrates how conversion of Alexander's patterns into their reverse sets is formulated.

Table 1   Conversion chart of patterns for Balikesir

Alexander's patterns		Balikesir (negative/reverse) patterns	
Name of pattern	*Qualities*	*Name of pattern*	*Qualities*
Mosaic of subcultures	Heterogeneity	Cultural uniformity	Homogeneity
Magic of city	Clustered urban services	Lifeless city	• Urban services not exist thus not clustered • No variety of life styles • Intolerance to racial and socio-economic differentiation
Identifiable neighbourhood	• Spatial unit to belong to as distinct from others • Strong communal identity only if protected from heavy traffic	Traffic city	• No spatially identifiable unit • Unfriendly communal identity • Cars spread people around killing all social life all around the city.
Local transport areas	Town is hierarchically broken into local transport areas		• Polluted and dangerous environment
Web of public transport	Well-connected with fast and short connections at interchanges	Unconnected transport	• Unworkable connections between different medium of public transport
Interchange	• Connected with pedestrian street life • Easy change from one travel to next • Work and housing evenly distributed around interchanges		• No interchange
Shielded parking	Large parking garages are put behind some kind of natural wall which can be a building, connected building, housing hills, earth berms or shops	Parking blocks/fields	• Parking is provided either in 'inhuman and dead' multi-storey car-parks or large areas • Vast parking lots wreck the land for people
Small parking lots	Parking lots are divided into small lots serving five to seven cars, and surrounded by garden walls, hedges, fences, slopes, trees, and about 100 feet apart		

Table 1   Conversion chart of patterns for Balikesir (continued)

Alexander's patterns		Balikesir (negative/reverse) patterns	
Name of pattern	*Qualities*	*Name of pattern*	*Qualities*
Mosaic of subcultures	*Heterogeneity*	*Mosaic of subcultures*	*Heterogeneity*
Network of paths and cars	Pedestrian paths are laid at right angles to roads in high-density traffic areas to form a second network	Web of cars against people's paths	• Almost the whole town centre is intruded by vehicular traffic making centre unbearable and dangerous for pedestrians.
Green streets	• Local roads are closed to thorough traffic, or thamed • Grass is planted all over the road setting occasional paving into grass to form a surface for the wheels of the cars • The distinction between street and sidewalk is very subtle.		• Too much asphalt in the town • Sidewalks are too high
Web of shopping	Placed on positions serving best to people's needs	Line of shopping	• Shops guarantee their own stability by placing themselves next to existing clusters • Large gaps in services between mix-use clusters
Life cycle	• Full slate of setting needed for all stages of life is included • Full slate of setting which best mark the ritual crossing from one stage to next stage of life is included	Fragmented lives in the city	• Every stage in the full life cycle of human experience is represented in segregated parts of the city • Spaces for the interactions between them are not provided • Spaces for the transitions between them are not provided
Teenage society	High school is replaced, in traditional societies with an institution which is a model of adult society giving students the most of the responsibility for learning and social life, public roles and discipline		• 'Modern high schools' fail to provide the psychological demands of the passage from childhood to adulthood

Table 1   Conversion chart of patterns for Balikesir (continued)

Alexander's patterns		Balikesir (negative/reverse) patterns	
Name of pattern	*Qualities*	*Name of pattern*	*Qualities*
Mosaic of subcultures	*Heterogeneity*	*Mosaic of subcultures*	*Heterogeneity*
Men and women	Each piece of the environment is made with a blend of masculine and feminine instincts at every scale	Masculine city	Masculine and feminine spaces in city are fragmented
Eccentric nucleus	Systematic structuring of high and low activity areas throughout the town	Vague nucleus	Unrecognisable pattern in the overall distribution of densities in town
Activity nodes	Centre of communal facilities (symbiotic activities) around a small square with converging paths	Single facility cores	• Vehicular junctions instead of defined squares • Spreading of symbiotically related activities • Concentration of similar activities in same locations (e.g., banks, textile shops, food stores, etc. grouped together) • Public life is spread thin around the town centre
Promenade	A dense communal centre for public life as a place for lingering, to see, to be seen, with clear destination points	Thoroughfare	• A dense but traffic oriented street with limited places for lingering and vague destination points
Night-life	• Evening activities concentrated to generate enough attraction • Full of light • Sufficient surveillance • Minimum six spots in a cluster	Night-mare	• Inadequate evening activities to generate enough attraction • Lack of light • Insufficient surveillance • Maximum two spots in a cluster

Table 1   Conversion chart of patterns for Balikesir (continued)

Alexander's patterns		Balikesir (negative/reverse) patterns	
Name of pattern	Qualities	Name of pattern	Qualities
Mosaic of subcultures	Heterogeneity	Mosaic of subcultures	Heterogeneity
Hierarchy of open space	People find spots where they can have their backs protected, looking out toward some larger opening beyond the space immediately in front of them	Indoor city	• Lack of outdoor spaces for communal activities or for people to hang out for hours at a time. • Outdoor spaces are merely 'left over' between buildings, and thus are not used.
Public outdoor room	A partly enclosed space, with some roof, columns, without walls, perhaps with a trellis is placed beside an important path and within view of many homes or workshops		
Positive outdoor space	Each outdoor space is given some degree of enclosure through wings of buildings, trees, hedges, fences, arcades, trellised walks.		
Degree of publicness	Spaces for different types of people are located on different locations graded as public, private and in-between	Extremes of publicness	Spaces located either in public or in private locations of circulation layout.
Paths and goals	Natural points of interest are set as goals and paths are laid to connect and swell around them	Paths and no goals	Lack of intermediate goals
Street café	Intimate street cafes with several rooms opening to a busy path, where people can sit lazily, drink and watch the world go by, with the possibility of a set of tables can stretch out to the café into the street in each neighbourhood.	Hidden café	Only two cafes are laid on busy paths and have direct relation with the street while the rest of them are placed on quite hidden locations of the town

Table 1   Conversion chart of patterns for Balikesir (continued)

Alexander's patterns		Balikesir (negative/reverse) patterns	
Name of pattern	*Qualities*	*Name of pattern*	*Qualities*
Mosaic of subcultures	*Heterogeneity*	*Mosaic of subcultures*	*Heterogeneity*
Building complex	Building program is translated into a complex (one single three-dimensional fabric) of buildings whose identifiable parts manifest internal social facts	Identical buildings but city	• Isolated buildings are symptoms of a disconnected sick society • Buildings are monolithic • Set backs destroy the street as a social space
Connected buildings	Buildings are connected, wherever possible, to existing ones round about. New buildings are formed as continuations of the older ones rather then keeping setbacks between them.		• Masses and facades are almost identical • The contrast and conflict between the building and the land its land is not resolved since buildings are identical wherever they are built.
Building fronts	Buildings which front on streets, paths, public open land are built right up to paths accommodating to the shape of the street.		
Connection to earth	Buildings are connected to the earth by a series of paths, terraces and steps around the edge placed deliberately to make the boundary ambiguous.		
Arcades	Semi-private covered spaces not only provide an interaction and transition from public to private spaces, but also connect buildings and protect people walking from whether conditions	Barricades	Ground floor walls, garden walls and retaining walls are all treated as hard barriers for people
Garden wall	Garden walls provide enough relief from the sights and sounds of passing traffic with soft enclosure		

Table 1   Conversion chart of patterns for Balikesir (continued)

Alexander's patterns		Balikesir (negative/reverse) patterns	
Name of pattern	*Qualities*	*Name of pattern*	*Qualities*
Mosaic of subcultures	*Heterogeneity*	*Mosaic of subcultures*	*Heterogeneity*
Sheltering roof	The surface of sheltering roof is made visible, eaves are brought down low to enable people pause	Nomad tent	Sheltering roof membranes, which are intended as tensile structures reflect the image of a Nomad tent because of the deficiencies in design, structuring, detailing and construction.
Sacred sites	They are reached through a progression of areas	Sacred spots	Physical environment does not sustain spiritual roots and past connections
Carnival (city)	City needs dreams and realises them through fantastic happenings to release the inner forces which cannot be encompassed by ordinary events	Funeral city	People do not wish to reveal their madness through carnivals, side-shows, tournaments, acts, displays, street theatre, clowns, transvestites, freak events since madness and difference are totally intolerable behaviour
Network of learning	Process of learning is decentralised and enriched through contacts with many places and people all over the city Workshops, teachers at home, professionals in their offices, older children, experts in museums, youth group travels, scholarly seminars, industrial workshops, older people can master young and eager apprentices	Compulsory education	Lock-step of compulsory teaching in a fixed school is preferred
University as a marketplace	University is established as a marketplace of higher education. It is open to people of all ages, on full or part-time basis. Anyone can offer or take classes. It takes place at central crossroads to be dispersed and mixed with the town.	University as a camp	Concentrated, cloistered university with closed administration policies and rigid procedures which dictate who can teach a course kill opportunities for learning.

One can identify in each city a distinct urban-architectural character. Similarly, one can also observe distinct design approaches in each ecolé that is to say in each architectural school. Hence, it is possible to see that each city, and thus, her school of architecture develop their own pattern language in order to build specific architectural and urban design programs. In majority of cases, it is also possible to observe parallels between the character of urban fabric and that of urban design projects developed in architectural studios. Here, these parallels will be analysed on a methodological basis with particular reference to Balikesir, which exhibits an outlook of a city with serious problems of identity. This study is quite significant mainly because student projects also accommodate a repeating pattern of spatial problems that can be seen in the city.

2   Methodology

The impacts of the above-mentioned negative patterns are formulated in terms of charts displaying visual information in relation to design qualities. These charts are interrelated in successive stages in respective of their scales, named as layers. The impacts of environment on education are analysed through these interrelated charts. The method is applied on Balikesir town centre and 4th year student projects from Balikesir University, Department of Architecture. Study covers the projects submitted between 2001 Spring semester and 2003 Fall semester, and approximately around 40 students.

In regard to the proposed methodology, it is significant to note the following. The patterns about spatial organisation and architectural features, as adopted from Alexander's pattern language, are ordered in a manner beginning from the largest scale ending with those regarding various details. Although these patterns are presented in straight linear sequence, the connections between them are of utmost significance for them to be capable of building a coherent whole in both the city and architectural projects in design studios. Moreover, their analysis through four successive layers: *city*, *architectural school*, *design studio*, and *student projects* regarding their *transmission* and *transformation* constitutes the basis of this study. This analysis could be defined as a surgical excavation simply because it is a process in which spatial problems can be diagnosed at various scales from the largest to the smallest. Hence, after the problem is identified, it can be taken into the architectural studio for surgery. This is essential since studio is the place where professionals in the recreation of urban environment are educated.

The interaction between the negative patterns and successive layers can be clearly seen through this methodology towards a better formulation of the relationship between the spatial conception by architectural students and urban-architectural quality of the city in which architectural schools are established. The patterns listed in the first column in Table 1 are selected from Alexander's work as those relevant yet absent or insufficient in Balikesir. In Balikesir, a new set of patterns as listed in the second column in Table 1 is formulated. Generally, all these patterns are reversed to find the new set of patterns. Furthermore, some relevant patterns are merged together and combined as 'negative (or reverse) patterns'. These are defined on the basis of widely used adjectives by citizens and students to define Balikesir. These adjectives are obtained through a parallel study conducted in regard to the rehabilitation of the town centre. It is undertaken by means of

questionnaires, open ended interviews and complementary cognitive maps (Çetin et al., 2004).

The following chart displays, on the first column, the original patterns and their qualities, and secondly, on the opposite column, the negative (i.e., reversed) patterns and their qualities observed in Balikesir. The interactions, similarities and differences between the qualities of two different set of patterns are analysed.

In conclusion, one can suggest that city of Balikesir and all its constituent parts (i.e., districts, neighbourhoods, squares, open spaces, streets, group of buildings, etc.) are formed by utilising various combinations of these 'negative patterns'. Therefore, the city of Balikesir reveals anti-urban character.

At this point, it is convenient to give various examples from these spatial units at varying scales selected from different parts of Balikesir. The following chart illustrates a photographic survey, written descriptions, urban-architectural qualities and patterns associated with it. Thus, it is possible to visualise the 'negative patterns' with reference to the urban context of Balikesir.

Table 2   Photographic survey of spatial units and associated patterns in Balikesir (see online version for colours)
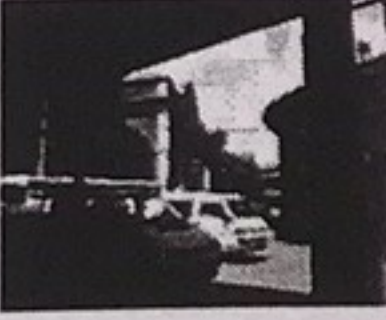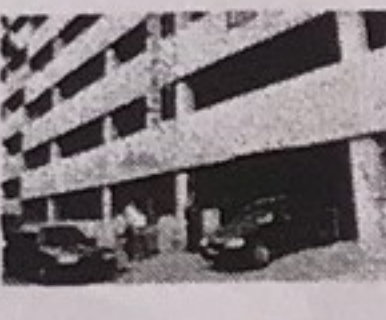
Photographic survey of spatial units in Balikesir					
View of places	*Written description*	*Associated patterns*	*View of places*	*Written description*	*Associated patterns*
	A vast area (not a square) in the historical core	Cultural uniformity		A view of the city at night	Nightmare
	One of the nodes in the historical core	Lifeless city		A view from one of the nodes which is not used as a node	Indoor city
	One of the nodes interrupted by vehicular traffic	Traffic city		Spaces located either in public or in private locations of circulation layout	Extremes of publicness
	A multi-storey car park in the town centre	Parking blocks/ fields		A view from Milli Kuvvetler Street as a vehicular path with no goals for pedestrians	Paths and no goals

Table 2   Photographic survey of spatial units and associated patterns in Balikesir (continued)
(see online version for colours)

Photographic survey of spatial units in Balikesir					
View of places	*Written description*	*Associated patterns*	*View of places*	*Written description*	*Associated patterns*
	A vehicular road passing through a shopping arcade	Web of cars against people's paths		One of the cafes in the courtyard of a shopping building (Hasan Baba Market)	Hidden café
	One of main shopping streets (Milli Kuvvetler Street)	Line of shopping		A mosque in the historical core displaying problems in integrating with the rest of the city	Sacred spots
	An overall view of the city	Fragmented lives in the city		An overall view of the city which does not support any public life	Funeral city
	An aerial view of a modern intervention into the city	Masculine city			University as a camp
	A view from the current state of the historical core (Ali Hikmet Pasa Square)	Vague nucleus		New building developments in the city	Identical buildings but city
	One of the nodes used as bus stops in the historical core	Single facility cores		A view of the governmental centre	Barricades
	A vehicular road passing through a shopping arcade	Thoroughfare		An aerial view showing market tents and shed structures	Nomad tent

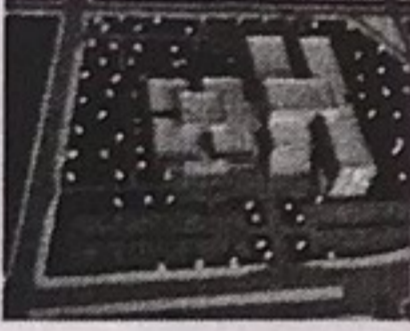**Table 3**   Survey of student projects and associated patterns in Balikesir (see online version for colours)
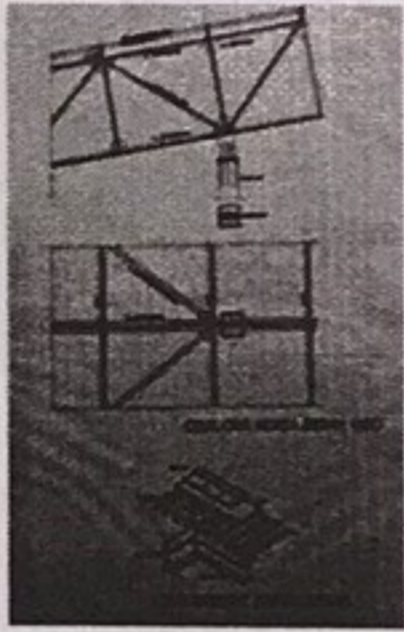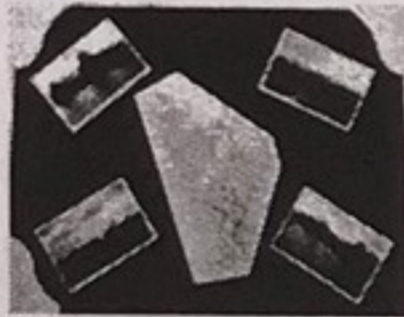
Survey of student projects in Balikesir					
Projects	Name	Associated patterns	Projects	Name	Associated patterns
	4th year congress centre	Parking blocks/fields Indoor city Traffic city Web of cars against people Paths and no goals Extremes of publicness Identical buildings Vague nucleus Single facility cores Funeral city Fragmented lives		4th year hotel	Indoor city Masculine city
	4th year hospital	Parking fields Indoor city Masculine city Identical buildings		4th year congress centre	Nomad tent Identical buildings
	4th year thermal hotel	Indoor city Paths and no goals Vague nucleus Fragmented lives Extremes of publicness Barricades Masculine city		4th year congress centre	Lifeless city Traffic city Fragmented lives Vague nucleus Indoor city Extremes of Publicness Identical buildings Funeral city University as a camp

Table 4   Chart for analysis of the interaction among different layers of patterns (see online version for colours)
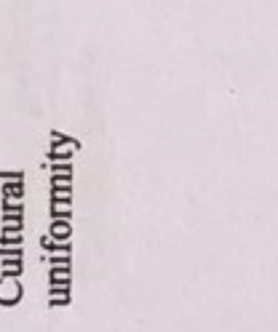
	Excavation through layers					
Layer I: city	Layer II: school		Layer III: studio		Layer IV: project	
(Negative/reverse) patterns in Balikesir)	Patterns in the campus and the building of architectural school		Patterns in design studios (4th year)		Patterns in design projects (4th year)	
Name of pattern	*Name of pattern*	*Qualities*	*Name of pattern*	*Qualities*	*Name of pattern*	*Qualities*
Cultural uniformity	Cultural uniformity	Standard conception of student	Cultural uniformity	Standard behaviour among students	Cultural uniformity	Designs for anonymous people
Lifeless city	Lifeless campus	No spatial differentiation for extracurricular activities	Sterile studio	No personalisation of studio space	Sterile space	Design of sterile spaces and no concern for cultural variation
Traffic city	Vehicular campus	Vast parking areas	-	-	Wrong traffic	Wrong traffic arrangements/solutions
Unconnected transport	Unorganised transport	• Infrequent buses • Irregular, crowded minibuses	-	-	Car spaces	• Spatial organisation for private car ownership • No distinction between pedestrian paths and vehicular roads

Table 4   Chart for analysis of the interaction among different layers of patterns (continued) (see online version for colours)

Excavation through layers

Layer I: city (Negative/reverse) patterns in Balıkesir	Layer II: school Patterns in the campus and the building of architectural school		Layer III: studio Patterns in design studios (4th year)		Layer IV: project Patterns in design projects (4th year)	
Name of pattern	Name of pattern	Qualities	Name of pattern	Qualities	Name of pattern	Qualities
Parking blocks/fields	Parking fields	Vast parking areas	-	-	Parking fields	Vast parking areas
Web of cars against people's paths	Anti-pedestrian campus	• No pedestrian alley • No pedestrian squares	-	-	Car spaces	• Spatial organisation for private car ownership • No distinction between pedestrian paths and vehicular roads
Line of shopping	No shopping	No shopping facilities	-	-	Shopping to meet only basic needs	Design of shopping spaces as lines of retail units
Fragmented lives in the city	Uniform campus	No spatial variation for different types of students	Homogenous studio	Standard behaviour among students	Homogenous people	Design of shopping spaces as lines of retail units

Table 4 Chart for analysis of the interaction among different layers of patterns (continued) (see online version for colours)

Excavation through layers

Layer I: city	Layer II: school		Layer III: studio		Layer IV: project	
(Negative/reverse) patterns in Balikesir)	*Patterns in the campus and the building of architectural school*		*Patterns in design studios (4th year)*		*Patterns in design projects (4th year)*	
Name of pattern	*Name of pattern*	*Qualities*	*Name of pattern*	*Qualities*	*Name of pattern*	*Qualities*
Masculine city	Masculine campus	No spatial variation for different genders	Masculine studio	No spatial variation for different genders	Masculine space	Designs for anonymous people
Vague nucleus	Heartless campus	No clear distinction of the central area of the campus	Divided studio	Scattered spaces for classes, labs, studios, offices, cafeterias	Scattered spaces	Deficiencies in organising spaces around a central core
Single facility cores	Scattered campus	Absence of mix-use cores	-	-	Single facility cores	Deficiencies in design of mix-use cores at various scales
Thoroughfare	Passage campus	Traffic oriented paths with limited places for lingering and vague destination points	-	-	Passage space	Conception of dense but traffic oriented street with limited places for lingering and vague destination points.

Table 4   Chart for analysis of the interaction among different layers of patterns (continued) (see online version for colours)

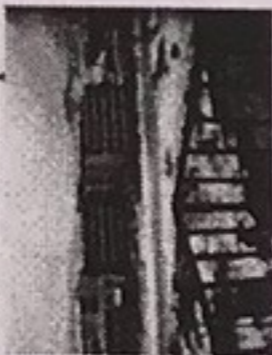|	Excavation through layers					
Layer I: city	Layer II: school		Layer III: studio		Layer IV: project	
(Negative/reverse) patterns in Balikesir	Patterns in the campus and the building of architectural school		Patterns in design studios (4th year)		Patterns in design projects (4th year)	
Name of pattern	Name of pattern	Qualities	Name of pattern	Qualities	Name of pattern	Qualities
Nightmare	Day campus	Dangerous at night	Jackle and Hyde corridors	Studios are locked at night	Daytime architecture	Designs for daytime
Indoor city	Indoor campus	No outdoor facility	Indoor space	No connection (visual and physical) with common outdoor spaces	Indoor architecture	Deficiencies in site plans, in public spaces, outdoor spaces
Extremes of publicness	No man's campus	Office spaces with extreme privacy and other spaces with extreme publicness	Anonymous studios	No possibility of creating personalised sub-spaces	Extreme privacy	Deficiencies in design of public spaces
Paths and no goals	Paths against campus	Lack of intermediate goals along paths of campus	–	–	Paths without goals	Lack of intermediate goals along interior and exterior paths
Hidden café	Basement cafés	No direct connection with common outdoor spaces	Mere spaces	Connection with recreation spaces through several flights of stairs	Mere functional spaces	No spatial organisation to enhance interaction among different types of spaces

Table 4   Chart for analysis of the interaction among different layers of patterns (continued) (see online version for colours)

Excavation through layers

| Layer I: city | Layer II: school | | Layer III: studio | | Layer IV: project | |
| (Negative/reverse) patterns in Balikesir | Patterns in the campus and the building of architectural school | | Patterns in design studios (4th year) | | Patterns in design projects (4th year) | |
Name of pattern	Name of pattern	Qualities	Name of pattern	Qualities	Name of pattern	Qualities
Identical buildings but city	Identical buildings	No differentiation among different buildings	Identical studios	No differentiation among different studios	Identical masses and facades	No differentiation among different student projects
Barricades	Campus as barricades	Ground floor walls, garden walls and retaining walls are all treated as hard barriers for students	Studio as obstacle	Spatial organisation as obstacle for students to learn, appropriate and enjoy	Space as impediments	Deficiencies in design of spaces to support an enhanced way of life
Nomad tent	Nomad campus	Spaces in campus do not support people to pause	Nomad studio	Studio spaces do not support students of architecture to stay, to appropriate, to go crazy	Shanty spaces	• Design of transient spaces with shanty outlook • Deficiencies in the design of a complete, new architectural intervention

Table 4   Chart for analysis of the interaction among different layers of patterns (continued)
(see online version for colours)

Layer I: city	Layer II: school		Layer III: studio		Layer IV: project	
(Negative/reverse) patterns in Balikesir)	Excavation through layers					
	Patterns in the campus and the building of architectural school		Patterns in design studios (4th year)		Patterns in design projects (4th year)	
Name of pattern	Name of pattern	Qualities	Name of pattern	Qualities	Name of pattern	Qualities
Sacred spots	Dull campus	No landmarks, no public meaning	Mutedio	No focal point, no public meaning	Blank space	Deficiencies in design of landmarks or focal points with public meaning
Funeral city	Just campus	No festivals	Just studio	No special occasions	Just space	Design for only regular activities
Compulsory education	Compulsory campus	Students leave as soon as possible after they finish their lectures	Compulsory studio	Students have as soon as possible after they finish their critics	Compulsory space	Design of spaces only to perform a very specific function
University as a camp	University as a camp	Students are expected to behave and perform in a specific manner as expected by authorities	Studio as classroom	No differentiation between classrooms and studios	Space as a room	Design of rectangular spaces of standard height

As can be seen from above chart, spatial organisation within the city seems not to support social attributes of urban life. On the contrary, it exhibits a tendency towards the establishment of 'negative patterns' (Çetin et al., 2004). In the next section of this study, the impacts of these patterns on the architectural design projects of fourth year students will be analysed. In order to see how these patterns are transmitted into the design projects of students studying at Balıkesir University, Department of Architecture, student projects selected from the fourth year design studios are examined. The following table shows the student projects selected from various semesters. They are arranged according to the scale and scope of the brief. The table exhibits projects, criticisms given at the juries, and associated negative patterns.

At this stage, how 'negative patterns' are filtered through successive layers of *city, architectural school, design studio*, and *student projects* can be put forward. The following chart reveals how the negative patterns are filtered through successive layers and brought into architectural studio (Çetin and Birol, 2003). The visual information (photography) and corresponding qualities in regard to the relevant layer can be traced for each negative pattern in the chart.

3   Conclusions

As can be observed above, the patterns of the city filter through different layers of spatial organisation into the life of students of architecture. Although it seems difficult to identify a systematic mechanism to formulate how each pattern is transmitted from one layer to the next, it is still possible to see parallel characteristics between these four spatial units with reference to specific patterns. Particularly, patterns related to traffic, outdoor spaces and variation are problematic at all spatial levels.

The following can be observed in the analyses conducted above:

- The patterns related to the socio-economic diversity and cultural variation of people; namely, *cultural uniformity, lifeless city* are directly transmitted to the design studio as 'design templates for anonymous people'.

- Problems related to the traffic in the city seem to have also reflected in the design studio. Student projects display serious deficiencies regarding public transport, vehicular traffic flows, transitions and intersections between vehicular and pedestrian traffics as well as the planning and organisation car-parking areas. Thus, patterns like *traffic city, unconnected transport, parking blocks/fields, web of cars, thoroughfares* are repeated in design projects of 4th year students of architecture.

- The impacts of patterns associated with cultural facilities and richness of daily life in the city, such as *lifeless city, line of shopping, vague nucleus, single facility cores, masculine city, fragmented lives, masculine city, night mare, indoor city, extremes of publicness, paths with no goals, barricades, sacred spots, funeral city, compulsory education* and *university as a camp* are clearly seen on 4th year student projects. Although 4th year students are expected to develop further solutions to enrich urban life in urban-architectural settings, tutors have faced serious problems to overcome the difficulty of creativity in that sense.

- The patterns about the architectural quality of buildings such as *hidden café, identical buildings, barricades, nomad tents*, are also used in the design projects of 4th year students of architecture. Particularly, 4th year students have significant difficulties to eliminate the impacts of these patterns during the semester.

Therefore, one can suggest a revision in the curricula of Balıkesir University Department of Architecture, in the manner to increase the accentuation on urban design with particular emphasis on; outdoor space, pedestrianisation, and variation. Also, it is crucially important for the first year design studio to encourage moving beyond the design clichés and negative patterns for students to be able to develop design creativity needed in 4th year design studios. Hence, one can suggest that architectural education is directly related to the urban and physical context. Therefore, one may presume that architectural education should be institutionalised primarily on positive urban environments rather than less developed and shanty looking towns of anti-urban nature. On the other hand, the potential of such towns as laboratories for improving the physical environment is also a significant factor in architectural education.

It seems that the essence of the problems observed in the design studios lies in the conception of people in the city. In other words, lack of socio-economic diversity and cultural variation of people in the city causes students of architecture to accept city as it is. Also, such uniformity and homogeneity cause students to refrain from questioning and criticising the current forms and manners of living in the city. Thus, the patterns to improve the life in the city and building are totally neglected although they are crucial for the education of students of architecture.

Similarly, this study can display an example in terms of a methodological basis to identify problems in the curricula and to develop solutions to improve the quality of architectural education in different schools of architecture. Different cities may reveal different problems (i.e., different 'negative patterns'). Thus, the analyses of the relationships between the problems in the city and the design studios of that city may put forward significant outcomes regarding architectural education.

The study reveals astonishing results since one could observe a strong correlation between the urban scene and educational realm in the schools of architecture. However, the question of whether it is inconvenient to teach architecture in less developed cities or whether there are other factors which can influence the quality of architectural education remains to be asked and researched in further studies.

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