MEASURING THE URBAN INTEGRAL SUSTAINABILITY IN “MUSTANSIRIYA UNIVERSITY” “ACCORDING TO THE INTEGRAL DESIGN THEORY

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Abstract: Lots theories and researches have been researching and analyzing the principles of the sustainable architecture according to the international standards. However, Iraq, its architects, and specialists are still behind the possibilities of applying the accelerating global green architecture trends and sustainable criteria. Hence this research represents a sustainable analytical process to one of the most unique event in the Iraqi architecture which is “MUSTANSIRIYA UNIVERSITY”. This process called the integral sustainable design theory. The main point of this research concentrate on the importance of the objective behavioral successfulness of the University complex around the years and the creativity of the designer (Qahtan Awni) in adopting the heritage vocabulary and giving its sense of belonging to the environment in a contemporary modern architecture with local material. As a result, we can consider “Mustansiriya University” as a successful example of a sustainable urban academic complex from the idea that the connectivity in its part make the sustainable holistic picture.

Keywords: Urban, Sustainability, Integral, Design, Theory.

1. Introduction
As Ken Wilber† described the integral model as a coherent harmonization of all in together, in comprehensive perspectives, and methodologies [1]. This research paper

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150
tries to put Mustansiriya University in an analytical inclusive process to have all its parts to an interrelated sustainable approach. Its work with complexity of the integral sustainable design theory (ISD) to simplified Mustansiriya University in to four quadrants each one represents a stage of the University development.

Starting with the designer quadrant which gives a state of Qahtan Awni’s Education &Artistry, experience, early work, Practical Career Stages (Approaches). and passing through Al- Mustansiriya University Behavior as the second quadrant.

Then going deeply into the system quadrant of the University and ending with the cultural intersubjective realities about the University. All this done by three main sources, the available books and information, frequent visits to the university and the sources approved by the Engineering Department at Mustansiriya University, and the questioner for (29 person), twenty of them (20) are random working in the university, and (9) architectural students studying now at the university to give the real expression for the University life and see whether it is sustainable or not.

So the goal of this research is measuring the urban sustainability at Mustansiriya University according to the four quadrant of the integral design theory.

The research was based on the descriptive analytical approach through a brief overview of the theory of integral sustainable design theory and its development within the conceptual framework, moving toward the practical framework which consist of analyzing the four quadrants of the theory trying to measure the urban integral sustainability in Mustansiriya University context.

2. The Theoretical Framework

2.1. The Integral Sustainable Design Theory

Taking the main idea of the Integral model from Ken Wilber (1977), Zimmermann (2005) and Barrett C. Brown (2006), the concept of this theory has been developed in 2011 by the American architect Mark DeKay‡, Firstly and In his first book, The Spectrum of Consciousness (1977), Ken Wilber described the integrative theory as an integral theoretical rule beginning with the assumption that everything is common and interrelated - at least in part - seeking to formulate the intellectual framework, (Or any other science) that challenges us to hold multiple perspectives simultaneously, address different levels of awareness across the human development spectrum and multiple aspects of sustainability The purpose of the theory is to ensure that all available resources are used for any situation, Provides greater potential for success and accelerates growth and sophistication Including medicine, business administration and ecological science, and extended to science, nature, and inspiration.

‡ An American philosopher, spiritual, and writer

‡ Mark DeKay is a professor at the University of Tennessee, the Department of Architecture and Design (UT), who has two masters’ degrees and a specialist in sustainable design. He has several books and works in this field and has won several international awards [2].
The pioneering synthesis of religion, philosophy, physics and psychology began a revolution in interpersonal psychology. He was the first to suggest systematically that the great psychological systems of the West could be integrated with the noble and contemplative traditions of the East. [3,4] The application of the theory was developed by Zimmermann (2005) who applied the theory to ecological concepts and presented environmental solutions.

Secondly, the addition of Barrett C. Brown[5] whom gave an accurate description of what theory is and expands its concept of sustainability as a part. He described them as "an integrative base in which the quarters represent lenses that guide a better understanding of any event and reveal internal dynamics and external to both individuals and groups together, and they provide a map of the pool of psychology, behavior, culture, and systems together. He pointed out that the quadrants can be used in three main ways to achieve sustainability: to organize information sustainability, to diagnose the challenges facing the sustainability initiative, and to impose an integrated solution representing all the major drivers of play. And gave solutions and indicators covering (not limited to) several areas of work, including leadership towards sustainability, sustainable urban development. [6].

Finally, Mark Dickey applied the theory and introduced it into architecture, in his book Integral Sustainable Design: ISD 2011, he presented his theory depending on the concepts of (vitreous) in reaching the goal of theory Which combines and tries to overcome the concepts, contradictions and paradigms between science and art, between design and technique, between mathematical and engineering analyzes And between creativity, and trying to collect together a conceptual framework that combines all in one, subjective and objectivity, and assumes the existence of several horizons and agree that each state can give different perspectives to the same problem) within four quadrants as in the integral theory of Wilber. [8].

each and every one of them examines and focuses on a particular aspect of the problem. The upper left part (UL) focuses on human experience and previous individual experiences, while the lower left (LL) focuses on community culture and responses Actions towards the project and the meaning of civilizational and symbolic collection, while the upper right (UR) represents the objective environmental behavior of the scientific project measurement, while the lower right (LR) focuses on the system and its relationship to urban context. [9,10].

Thus he developed the concept of holistic thinking, which creates sustainable forms in the relationship between the individual and the collective perception, and from creative point of view while at the same time balancing with the laws and the environment. He said that our buildings are vibrant and full of memories and social circumstances that Have become codified in architectural design [11,12].

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8 Barrett C. Brown: A US leader who helped individuals and organizations to move, change and open up the capabilities towards sustainability, Barrett chaired the Advisory Board Team For a number of companies and non-governmental organizations, and received his doctorate in 2011 For his thesis "Conscious Leadership for Sustainability", and today his views are based on Leadership and sustainability in executive education programs and universities around the world as well In the United Nations.[6,7]
Taking from Mark DeKay Book, Saglinda Hallet described the four quadrant as “The grid is broken into four quadrants each representing the four primary dimensions or perspectives of design understanding. The grid is an easy way to organize and understand all the differing aspects of sustainability” [13] as seen in Fig 1. [14]

![Figure 1. The four quadrants of the Integral Sustainable Design: ISD 2011, Mark Dickey [14, p.265]](image)

### 3. The Practical Framework

#### 3.1. Applying The Integral Sustainable Design Theory to Al-Mustansiriya University

At this part the research divided the practical framework into four parts depending on the ISD theory:

#### 3.1.1. UL: Individual- Interior: what i experience, subjective reality

This quadrant is located in the Upper Left corner (UL) and explored the life of Qahtan Awni.

His Education & Artistry experience, his Early work, and his Practical Career Stages (Approaches):

- Qahtan Awni Completed his primary, intermediate and secondary school in Baghdad.
- In 1946 He traveled to California in the United States to complete his university studies where he studied architecture. Because of his passion and practice of
painting. And the passion to the modern architecture of the west, he had a
distinct ability to present his projects, employed his technical ability to serve his
design idea which reflected his west touch [15].

- In 1951 he returned to Baghdad and this was the beginning of his career in the
field of specialization, which began work in the Secretariat of the capital. Soon
he left it showing his displeasure as Rifat Chadirji said once with routine and
stalemate [16]. His first work after his return was the preparation of the designs
for his family's residence in Waziriya in 1952, which was characterized by its
wide windows, influenced by the architecture of the fifties in the United States
of America and then he designed three houses located on the Corniche
Adhamiya. While the design of Salman Faiq Hospital was the most prominent
event at the fiftieth of the twentieth century in the Iraqi scene to highlight the
unique capabilities of the architectural designer [17].

- In 1960 he decided to join the office of Adnan Zaki Amin where he worked for a
period in which they completed some architectural works And then he worked
with the architect Abdul Sattar Ayyash until his death. At the level of his career,
two main lines emerged: the first is Qahtan the artist and the second is the
Qahtan the architect. The two reacted and added each one to the other.

- Through his practical career over twenty years and the outcome of the projects
are within the limits of fifty projects or more four stages of productivity have
been emerged unite in the characteristics of Qahtan Awni architecture. They
have been named through its properties as:
  - The experimental phase
  - The mass phase – White
  - Spiritual phase of the West Coast – California
  - Mustansiriya University phase [18]:

  The work of Qahtan Awni at this stage (Which was represented by the AL-
Mustansiriya University) represents a unique event in the Iraqi architecture. The
Architect adopted heritage vocabulary and gave it a new sense of belonging to the local
environment by using the local materials in new way, and connected it with Islamic
architecture [19].

3.1.2. UL: Individual- Interior: analysis and conclusions

As this quadrant concentrated on the designer experiences. the questioner Oriented
towards a selected group of architects whom and examine their knowledge of Qahtan
Awni’s architecture.

This phase demonstrated the ability of the designer to deal with large masses within a
single design model that reflects this time and its ear spirit, as seen in table 1. Which
represent the ratio of what it represents from one quadrant. And Fig.2 which represent
the percentage of each answer (with yes + sort of)
### Table 1. First quadrant - questioner results- Source: the researchers

<table>
<thead>
<tr>
<th>First Quadrant I</th>
<th>The questions</th>
<th>Percentage for the result of each Question</th>
<th>Ratio the field got %it from the answers Yes + sort of</th>
<th>The ratio of what it represents from one quarter</th>
<th>The total ratio (Avg.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artistry expertise</td>
<td>Do you find in the works of Qahtan Awni a Sensitive artistic sense of formations and color uses that reflect a special artistic taste and distinctive practice?</td>
<td>80 20 ------ 100 25 18.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>Do you find a turning point in the works of Qahtan Awni down to the Mustansiriya university?</td>
<td>20 30 50 50 12.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>Do you think that the direction of Qahtan Awni in the design of the Mustansiriya University has undergone a comprehensive transformation that reflects a comprehensive belief in these concepts?</td>
<td>50 20 30 70 17.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2. The first quadrant of the ISD result of Mustansiriya University - Source: the researchers

3.1.3. *UR: Individual- Exterior: maximize performance, objective reality*

This quadrant is located in the Upper Right corner (UR) and represented the perspective of behavior. It shows how did the designer maximize the project performance, stating with the site determinations, the components of the project, the philosophy of design, the powerful of functionality, the environmental performance, the materials choses, and the internal treatment.
The: Al Mustansiriya University project located in The northeastern part of Baghdad - the Palestine street as seen in Fig 3. has been designed in (1963-1969) As an academic complex function. The selection of the site was not accidental, as it was chosen close to Bab al-Mu'adham, which was the center of many governmental and cultural institutions. This region has witnessed growth for all Colleges of the University of Baghdad, which later gathered in the Jadiriyyah complex south of Baghdad. [20]

![Aerial view of AL-Mustansiriya University location](image)

**Figure 3. Aerial view of AL-Mustansiriya University location [21]**

a- Components of the project: The Mustansiriya University project is comprised of the following activities:

- **Public and administrative activities**: Administration building, Hall building, Central Library Building
- **Academic Activities (Colleges)**: college of Literature, Faculty of Administration and Economics
- **Entertainment Sports Activities**: Student Club, Sports Activities.

And Due to the expansion of the University, a group of buildings was established within the public site
- **Presidency University** (designed by Consultant office of Mahdi al-Hassani in the seventies).
- **Establishment of college of Science**, a number of scientific laboratories and service buildings (designed by consultant office of Hisham Mounir in 1980). [22]

b- Philosophy of Design: Qahtan Awni made sure that he used the common name between his university -Which was putting its design- and Al Mustansiriya School. While the formal formations were directed towards the derivations and metaphors dating back to historical stages separated by a considerable time (Baghdad traditional house, Historical buildings of Babylon).

In spite of the different metaphors of the vocabulary of the heritage, the designer was able to translate it through a dominant presence of one material is the brick. In addition, it considered the fourth Ensemble after al- Baet, University, Baghdad University and Us Embassy. [23]

c- Environmental performance:
The use of brick curtains to reduce the shared climate between the outer and the interior of the classrooms.

- The use of brick curtains to obtain protections reduces the negative aspects of the climate and the environment affecting the glass spaces behind them.

- The use of concrete horizontal louvers in addition to the material of the bricks that used in the external facades which is a good heat insulation material.

- Almost all of the university's facilities were constructed by simple and prevalent construction concepts in that period through the use of concrete pillars and Load-bearing bridges.

- The meeting Hall seems to be the only structural exception (because the functional nature which necessitates free space from structural symptoms) using tension cables.

- The designer was keen to keep the presence of structural formations and did not want to conceal them only as much as necessary.

d- Materials: Qahtan Awni used two materials in the University: The Bricks, which had a dominant presence and Pure Concrete, which is A contemporary material.

e- Internal Treatments: The interior spaces are dim and appear dark due to the blocking of direct light and sunlight by brick curtains and the darkening of the gray colors of the concrete areas along the main pathways.

3.1.4. UR: Individual- Exterior: analysis and conclusions

This quadrant focus on the project functionality as a concept and philosophy, however the questioner oriented toward the persons of the university to see how can we read the behavior of the university and its departments design ideas.

The number of the random persons are (20), the questions results seen in table 2., and presented in the quadrant grid in Fig 4.

The researchers made many visits to the university and the engineering office to have the planning layouts and having the right pictures for the university as seen in the appendix A.

### Table 2. Second quadrant - questioner results - Source: the researchers

<table>
<thead>
<tr>
<th>Second quarter</th>
<th>The questions</th>
<th>Percentage for the result of each Question</th>
<th>Ratio the field got it % from the answers Yes + sort of</th>
<th>The ratio of what it represents from one quarter (Avg.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project site</td>
<td>Is the location of the university good in terms of easy access (ie, the availability of roads and bridges linking the areas, making it easier for users to access from different regions)?</td>
<td>65 30 5 95</td>
<td>21.16</td>
<td></td>
</tr>
<tr>
<td>Components of the project</td>
<td>Are the components of the project, from administrative, academic and Entertainment activities, sufficient to</td>
<td>20 60 20 80</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
meet the needs of users?

<table>
<thead>
<tr>
<th>Project Philosophy</th>
<th>Do users see a link between Al - Mustansiriya university and Al - Mustansiriya school?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>Did the architect succeed in using the brick material in the facades of buildings?</td>
</tr>
<tr>
<td>Functionality</td>
<td>Is the location of the public events (administration and hall) near the entrance suitable for users?</td>
</tr>
<tr>
<td></td>
<td>Is the location of the academic activities (classrooms, laboratories and teaching rooms) in the central part of the university appropriate to perform its functions?</td>
</tr>
<tr>
<td></td>
<td>Is the location of the Entertainment activities (such as student club) at the end of the site near the back entrance suitable for users in terms of access to it within the short rests for students?</td>
</tr>
<tr>
<td>Environmental performance</td>
<td>Is the ventilation of the passages sufficient to revive the internal atmosphere?</td>
</tr>
<tr>
<td></td>
<td>Do atmosphere of the interior spaces good for users throughout the study period?</td>
</tr>
<tr>
<td></td>
<td>Are green spaces used throughout the study period or for a specific period?</td>
</tr>
<tr>
<td>The treatment of the interior spaces</td>
<td>Are the internal spaces at Mustansiriya University increase the factor of relaxation and mental relaxation, which are the most important factors that must be available in the study atmosphere?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Second Quarter</th>
<th>The Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site determinants</td>
<td>95</td>
</tr>
<tr>
<td>Components of the project</td>
<td>80</td>
</tr>
<tr>
<td>Philosophy of design</td>
<td>45</td>
</tr>
<tr>
<td>Functionality</td>
<td>78.3</td>
</tr>
<tr>
<td>Environmental performance</td>
<td>68.3</td>
</tr>
<tr>
<td>Materials</td>
<td>95</td>
</tr>
<tr>
<td>Internal treatment</td>
<td>95</td>
</tr>
</tbody>
</table>

Figure 4. The Second quadrant of the ISD result of Mustansiriya University - Source: the researchers
3.1.5. *LR: Collective- Exterior: guide flow, objective reality*

This quadrant is located in the Lower Right corner (LR) and represented the perspective of System. This quadrant represents the fitness and interaction of the site with the context, innovation in design, the Environmental Quality, the energy and atmosphere and general planning principle.

- **Innovation in design**
  - One of the important design requirements of the university have ability to expanding and flexible adaption to change
  - The University is a reflection of The national identity of the contemporary Iraqi building and
  - Qahtan translated the need of origin for environmental treatments derived from the origins of the urban reality
  - The University hold some of the heritage concepts by "the relationships of planning”
  - The planning of the old neighborhoods in Baghdad (Alhush) the incubation of buildings for gardens from the inside The group of buildings and schools and open to the inner squares of the Mahalla”

- **Interaction**: Reverse the system of internal orientation of practices and collective events through

the adoption of the principle of succession in the scattering of blocks proportional and responsive to the performance of job and isolate those that carry the specific function

- **Environmental Quality**: Try to create tiled and green spaces by choosing the shape of the building represented by letter “U” as in the traditional housing buildings.

- **General planning principle**
  - General planning has adopted the pivotal or spine principle that extends between the two sides of the site through two gates that are proportional to the spirit of general design and Events are distributed along the longitudinal axis and cross axis.
  - The schematic principle reflected the inward-oriented system of collective practices and activates through the adoption of the principle of succession in the allocation of proportional blocks in functionality and isolation of those with individual functional characteristics. as seen in appendix B.

- **Energy and atmosphere**: When the designer provided shaded areas and used block curtains and concrete cantilevers was able to provide energy and a comfortable general atmosphere for users at most times of the year. [23, 24]
3.1.6. **LR: Collective- Exterior: analysis and conclusions**

The quadrant consternated on the system and the project connectivity as a whole unit, hence, All the elements of design and planning proved that Qahtan Awni was able to deal with the “Mustansiriya University “as an urban academic complex. As seen in table3. And Fig 5. Which represent the ISD for the third quadrant.

<table>
<thead>
<tr>
<th>The Third Quarter</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation in design</td>
<td>21,25</td>
</tr>
<tr>
<td>Interaction</td>
<td>20</td>
</tr>
<tr>
<td>Indoor Environment</td>
<td>20</td>
</tr>
<tr>
<td>The principle of planning</td>
<td>16,87</td>
</tr>
<tr>
<td>Energy &amp; Atmosphere</td>
<td>18,75</td>
</tr>
</tbody>
</table>

Figure 5. The Third quadrant of the ISD result of Mustansiriya University - Source: the researchers

3.1.7. **RR: Collective- Interior: guide flow, objective reality**

This quadrant is located in the Lower Left corner (LL) and represented the perspective of culture. This quadrant represents the openness of Mustansiriya University, the privacy and identity, recorded a distinguished presence in the architectural scene. of Mustansiriya University have been establish in the 60s of the last century a different attempt in the philosophy and guidance in the extrapolation of the vocabulary of the heritage and the way of used The distribution of the schematic of each complex came in accordance with the principle of functional privacy.

- International architecture and on the other hand, the prevalence of the trend of the Brutalism in that period has affected the process of linking the philosophy of modern design with the local heritage
- While the formal formations towards the derivations and metaphors dating to the two separated by a large time zone at the time is repeated in some facades and a formal unit expressing the openings were found in the roofs of the roofs of traditional Baghdad houses for the purpose of airflow in summer to the house
- Then we find a metaphor from the historic buildings of Babylon, the method that was adopted to design the walls, the style that was based on showing the solid walls made of vertical grooves painted with bricks
Table 3. Third quadrant - questioner results - Source: the researchers

<table>
<thead>
<tr>
<th>Third quadrant</th>
<th>The question</th>
<th>Percentage of the results of each question</th>
<th>Average of the 100 answer yes + kind of</th>
<th>The percentage of what represents one quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guide to the context (Its)</td>
<td>1- Do you think the university has the capacity to accommodate new buildings?</td>
<td>%20</td>
<td>%30</td>
<td>%50</td>
</tr>
<tr>
<td>Innovation in design</td>
<td>2- Do you think that the compound of Mustansiriya expressed the Iraqi identity?</td>
<td>%65</td>
<td>%35</td>
<td>%0</td>
</tr>
<tr>
<td></td>
<td>3- Did the designer succeed in reflecting the Iraqi architectural values in the design of the university?</td>
<td></td>
<td>%60</td>
<td>%35</td>
</tr>
<tr>
<td></td>
<td>4- Does the university suitable to the context of the city in general?</td>
<td></td>
<td>%40</td>
<td>%50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>%50</td>
<td>%35</td>
</tr>
<tr>
<td>Interaction</td>
<td>-Do you find the university helping to create a comfortable social atmosphere (such as easy communication with others by providing seating areas, rest rooms and entertainment)?</td>
<td></td>
<td>%65</td>
<td>%30</td>
</tr>
<tr>
<td>indoor Environmentally Quality</td>
<td>-Does the university find itself connected to the city's life (ex. the university's openness to the city and its accessibility)?</td>
<td></td>
<td>%30</td>
<td>%50</td>
</tr>
<tr>
<td>General planning principle</td>
<td>-Do you think that the design of the Baghdadi heritage houses has been reflected in the design of the university?</td>
<td></td>
<td></td>
<td>%50</td>
</tr>
<tr>
<td>Energy and atmosphere</td>
<td>9- The movement within the university is suitable for users in terms of isolating the general movement from the private movement?</td>
<td></td>
<td>%50</td>
<td>%35</td>
</tr>
<tr>
<td></td>
<td>10- Is the movement within the university suitable for users in terms of providing shaded areas?</td>
<td></td>
<td>%15</td>
<td>%45</td>
</tr>
<tr>
<td></td>
<td>- Do you see the spirituality of the old Islamic city (with its zuqaq and shanashil ) reflected in the design of the university?</td>
<td></td>
<td>%25</td>
<td>%45</td>
</tr>
</tbody>
</table>


The designer adopted AL- Mustansiriya school as a method (historical heritage). The Mustansiriya School was turned into a university gate overlooking Palestine Street. Then we see the spirituality of the Islamic city with its zuqaq, squares and centrality, which is embodied vertically in the lighthouse of the mosque and indicated by the Clock Tower.

The University represents a distinct and unique way of reflecting the vocabulary of the heritage.

All of the architects considered Mustansiriya University excellent building style and its buildings have human sense and a good performance [23].

From this, Al-Mustansiriya represents the uniqueness of the Iraqi identity in terms of its design metaphors and its openness in terms of its regional and global fame. It was proposed to join the World Heritage List as it represents the Iraqi architecture in the sixties and the present day.

3.1.8. RR: Collective- Interior: analysis and conclusions

The quadrant consternated on the cultural factor, the privacy, the openness, the sharing values of the University which gives AL- Mustansiriya University its sustainable identity through time.

As seen in the table 4. Which represents the questions oriented to the (20) random persons, and the results showed in Fig 6.

<table>
<thead>
<tr>
<th>The fourth Quarter</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privacy</td>
<td>22,5</td>
</tr>
<tr>
<td>Opening</td>
<td>18,75</td>
</tr>
<tr>
<td>Sharing</td>
<td>21,25</td>
</tr>
</tbody>
</table>

Figure 6. The fourth quadrant of the ISD result of Mustansiriya University - Source: the researchers
4. Discussion and Conclusions

- From the Fig 7. Which represent the ISD measurement result, we can see that the functionality and the behavior of the university reflected the sustainability of the university in doing its jobs as a complex with a local identity and unique design.
- Fig 7. Scheme revealed also the strong connectivity among the four quadrant which reflect the successful integrity from the designer experience which provided the strong function and the integrated urban design and the urban presents.
- All the above prove that the Integral sustainable design scheme can use to measure the urban integrity of and Al Mustansiriya university in particular and any building project with the idea that the connectivity in its part make the sustainable holistic picture.

<table>
<thead>
<tr>
<th>Fourth quadrant</th>
<th>The questions</th>
<th>Percentage of the results of each question</th>
<th>Average of the 100 answer yes + kind of</th>
<th>The percentage of what represents one %quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>(WE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td>IsMustansiriya University a pure Iraqi symbol?</td>
<td>%80 %10 %10 %90</td>
<td></td>
<td>22.5</td>
</tr>
<tr>
<td>Opening</td>
<td>Have you been interested in the university locally (doing studies and seminars and encouraging its preservation)?</td>
<td>%55 %20 %5 %75</td>
<td></td>
<td>18.75</td>
</tr>
<tr>
<td>Sharing</td>
<td>Do you support the inclusion of Mustansiriya University after 15 years to the World Heritage List? As a heritage symbol?</td>
<td>%80 %5 %15 %85</td>
<td></td>
<td>21.25</td>
</tr>
</tbody>
</table>

Figure 7. All quadrants of the ISD result of Mustansiriya University - Source: the researchers
Acknowledgement

A special thanks for the engineering office of Mustansiriya University, all the workers, students, staff and the presidency for the provided information and support.

Appendix – A

Photos of The Mustansiriya University taking by the researchers (Eng. Ruqaia and Eng. Duaa)

Appendix – B

The planning layout taking from the engineering office in The Mustansiriya University.
5. References


