## RESEARCH ARTICLE

# Identifying Urban and Rural Areas: Case Study in The City of Anbar Governorate, Hit District, Iraq 

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| ARTICLE INFO | ABSTRACT |
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| Received: May 21, 2024 | The urban periphery area is the boundary of urban areas at the <br> surrounding rural scale, and it is necessarily the area of urban spread to <br> meet the need, in their population and in the expansion of LULC in the <br> development of technological means in transport, construction and <br> production, and the city is a living organism that grows if it has auxiliary <br> factors, pushing it to this growth and expansion from the city towards the <br> periphery, whether in a radial pattern or successive waves. The study aims |
| to determine the trends of future spatial expansion of the urban-rural |  |
| Keywords | periphery area, which helps to achieve a balanced development that has <br> economic, social, urban and environmental dimensions. Its demographic <br> characteristics have been identified in the proportions of urban and rural |
| Urban | uses in each framework within the same scope on both sides. one of the <br> most prominent recommendations is to include these areas among the <br> priorities of administrative authorities and divide them environmentally |
| Hit | city |
| and spatially for urban convenience through the regulation of LULC. |  |

## INTRODUCTION

## Research Problem

Each city has a heart, a middle range, external edges and parties commensurate with the nearby surroundings in it (the countryside) on the ground to impose a kind of commandments on the land, which may be part of it is a rare agricultural land or fallow land to be its expected goal in the future and put it in front of a number of questions:

1. What are the urban-rural periphery? Where is it located? What are their characteristics? How can they be determined? How is their internal structure formed? What are their problems? Can they be addressed?

## Research hypothesis

1. The peripheral area represents the point of overlap and intermingling between urban uses and uses (mining agriculture)
2. The peripheral area is located outside the city limits.
3. They can be identified in a field way by surveying them in situ, determining their demographic characteristics and adopting the Brier method.
4. Land uses within the study area include a number of residential, industrial, commercial and various services, each of which took a spatial space.
5. This area represents the most anticipated expansion of the city of Hit.

## Research Objective

The research aims to trace the stages of development of the rural-urban periphery of the city of Hit, stand on its reality and monitor its paths through the adoption of mathematical formulas and methods.

## Study Area Location

The city of Hit is located between latitudes (33.37.17) and (33.39.38) north and longitudes (42.46.38) and (42.50.58) east. (Ameri,2021, 16). It is bordered to the north by the Euphrates side, to the south and southeast by the Kubaisa district, and to the west by the Baghdadi district. (Al-Hayani, 2005, 24). As shown in map (1), this map shows the location of the city of Hit within Anbar Governorate, and this city includes these neighborhoods (Al-Moallim, Al-Jari, and Al-Khader). These names are not local, but rather are the names of the neighborhoods that are part of the city, as the map shows. The study area is located outside the basic plan of the city of Eid. The study area cannot be integrated into the map, as it is characterized by a decrease in land prices and has green spaces in which residents take their free time, in addition to reducing pollution in them because they represent green spaces and waterfronts that are considered the lungs of the region, that is, an outlet for them. There are few taxes imposed on them. On it and the breadth of the cadastral unit that cannot be obtained, therefore, the population drives the city to go towards this area, and its districts are represented by Al-Suwaib, Banan Al-Khouda, Al-Maamoura, Al-Ma'badiat, Hamadi, Jarurah, Basaer Al-Sharqiya, and AlGharbiyya Aknan.

## Previous studies

Through research and investigation of studies that dealt with urban rural outskirts, we found only two studies, one of which is by Dr. Salah Hamid Al-Janabi, by applying the Breyer method to the cities of Mosul and Nasiriyah, and taking a distance of one kilometer as a standard for the city of Mosul. Through this distance, the variation in the proportions of the two uses appears in each. A frame from the right and left sides. As for the second study, which was on the city of Nasiriyah, the standard differed. It took ( 250 m ) for each frame surrounding the city center. We found a discrepancy on both sides of the city. This manuscript was used in previous studies in 1997 and has no roots in modern studies.


Map (1) Location of the study area from Iraq and Anbar Governorate

Source: Republic of Iraq, Ministry of Water Resources, General Survey Directorate, Heath Administrative Map, 2000, scale 1/500,000.

The Arc Gis Map 10.8 program was relied upon, and through this program the location of the city center was determined on the map, and the city center was identified as a specific point on the map, which was the starting point for implementing this method on satellite images.

First: The emergence of the rural-urban periphery area according to the stages of development of the city

The urban periphery area is the boundaries of urban areas in the surrounding rural area, which is necessarily the area of urban expansion to meet its need for land after population inflation and LULC size in the development of technological means in transportation, construction and production, the city is like a living organism grows if it provides the auxiliary factors that drive it to this growth and the factors vary in its type and the extent of their impact, but they do not go out of being internal factors pressing from the city center towards its outskirts and the fact that rural people prefer Stability in the peripheral area because of its original rural environment from which they originate, in addition to the tribal support represented by these people and their tendency to live next to the groups that settled before them and descendants of the same tribal affiliation in order to provide security, tranquility and solidarity among themselves, some residents move to marginal areas out of necessity, including the development of areas and the services they contain and thus the investment of new lands.

## The first phase until 1921

Its area at that time reaches the walled castle, The first phase includes 1921 Its area at that time reaches (7.41) hectares. This is an area that surrounded the city with a wall filled with water, where it had several doors and different directions, including the Eastern Door, a place that reaches to the side of the orchards, the Western door that reaches to the side of the orchards, the eastern and Western doors, and the southern door towards the Qalqilya and Sabkhat running, and this refers to the castle of the city of hit at the beginning of its emergence, and the purpose of this castle was to protect residents from the dangers of flooding, thieves and bandits.
As for the eastern side, it is called the Sanjak or (Al-Sanjaka) and this wall was its task of protection in the sense that the basic function of Hit was then defensive and this is what followed the moment in reality The emergence of the city of Hit The wall (castle) after taking advantage of the characteristics of the high position of the neighboring areas and its proximity to the source of water permanent flow, represented by the Euphrates River was necessary to protect the city's residents in times of war and peace.

As for the urban rural outskirts at this stage, they were represented by the area surrounding the city wall, which is located within the direct region very dense, for an average width of ( 300 meters), it was at the end of the stage the presence of orchards and villages of Fandi and Kabaniya from the west, and orchards of the villages of the western roundabout from the east and the southeastern and southwestern sides.

## The second stage: from (1922-1958)

The site played an important role at this stage in terms of the natural elements represented by the relative height between ( $62-72 \mathrm{~m}$ ) above sea level outside the wall of the city of Hit, represented by the castle area (Al-Rabdh) and when the security situation stabilized after the establishment of the Iraqi state in 1921 AD , where the obsession with fear of people is the flooding of the Euphrates River, which may endanger residential homes and the lives of the population at the time, Therefore, a high place was chosen represented by anxiety to begin the urban expansion phase, which began approximately around 1918. The multiplicity of functions and activities in the urban center was also
affected by the natural population increase or migration from neighboring regions represented by the migration of peasant families and farmers towards the city due to the fear of repeated flooding of the Euphrates River, especially the floods of the year (1946-1954 AD) as well as the demolition of the wall and the trench surrounding the city.Which was the reason for the expansion of the city at this stage to that area with a distinctive characteristic that expresses the protection of its residents from the dangers of floods that were serving the area in that period.

At this stage, LULC expanded for land use and renewed others changed the urban landscape and spatial space until the total area of the city reached about ( 240 hectares) included in its framework, and represented by parts of LULC represented by the orchards of the western session, all of which was the reason for the emergence of new urban parties in the region of the region very tangent or the center of the city represented by orchards and villages of Qandi and Kabaniya located west of the city and agricultural land east of the city, such as the eastern session and areas located south of And southeast of the city , including barren lands (sabkhas) and represented by the running area. Affected by a small number of residential houses within them seem to be the sovereignty of Arab construction either building materials used from lime and the entry of iron rails and there have been many changes in the front facades of houses and types of windows that were larger than usual has included houses what is called underground basements either the northern side is represented by the Euphrates River.

## Third Phase: (1959-1977)

This stage was characterized by the expansion of the urban space compared to the previous stage, as a result of the population increase and the overcrowding of housing units in the old parts and the state's distribution of residential land to employees, which led to the expansion of the city towards the rural outskirts adjacent to the city, within its tangent territory to turn into new neighborhoods (Qandi - and Kabaniya - and teachers from the west and southwest - and running - And Al-Khidr from the south, and the eastern session, which is veterinary from the east, and the total area of the city at that time about ( 305 hectares) (Al-Mawla, 2001, 78).


Map (2) Hit City in the third phase

It is worth mentioning that the urban expansion of the city towards the west came after the distribution of land to teachers by the Housing Association, and the expansion towards the southwest was the result of the construction of some of the people housing units in the form of excesses within areas currently called neighborhoods (Al-Khader - Al-Jerri - and the eastern cycle) (Sriseh, 2001, 134) As for the urban periphery area. Rural from the south and southwest, including cases of abuses by some people in the construction of their homes scattered within the areas that are currently known as running and greens, which are saline lands full of Al-Ayoun Al-Qariyyah, as well as part of them are high, especially the mountain area, but from the east, there was LULC and the rural south were within the eastern session area and parts of an area currently known as Al-Qadisiyah neighborhood (formerly Al-Bitara).As for the north, the Euphrates River was and still is at this stage a natural delineator between the city and its surroundings.

## Fourth Stage: (1978-2003)

This stage represents the first beginning of the city's growth on a regular basis , as it was distributed on sound foundations in the planning process and the extent of the possibility of expansion in terms of services and spaces, where the first Basic plan for the city in (1977), which is the first plan for the basic design of the city of Hit for the distribution of urban districts in it. It is an action program and plan to develop the city by achieving a set of goals set by the planner for development and approved by the relevant authorities to become a binding law for implementation. The design includes the foundation and urban structure of the city in comparison with development trends and determining short- and long-term goals for growth, future change, and special recommendations in the form of maps and tables, which help the planner. And fixing density standards for different LULC, in order to achieve sustainable development. In order to arrange and organize urban growth and reduce the area of organic growth that went during the previous stages, as this stage was characterized by the activity of the reality of functional and service activities as part of economic and social developments, Which Iraq witnessed through the preparation of the scheme and its growing population on education, building, construction and health, as well as the distribution of residential land for employees and military personnel, which led to the growth and development of the city, as the area of the final city at this stage reached ( 967 hectares).

As for the urban-rural periphery area, it can be located in that period from the northern, northeastern and western sides, after the city crossed the natural barrier represented by the Euphrates River and the orchards of the village of Al-Turbah towards a rural road that took the spread to the Al-Bakr neighborhood within the island desert, represented by the area (Al-Bakr neighborhood) and the introduction of a rural road represented by the village of Al-Turbah to show an explicit rural road by more than $93 \%$ Among the LULC that remain within the urban and rural overlap area, are simple urban indicators, some of which can belong to industrial workshops, shops, residential houses and a primary school, as in the villages of Nuaimiya and Al Rais.

As for the northeastern side of the Bakr neighborhood, it is orchards and agricultural land, as it reaches about $99 \%$, interspersed with a few residential houses and an elementary school on the street leading to the Euphrates side, and if we return to the first bank of the river on the right side, the urban rural outskirts of the city of Hit have expanded urbanly and other areas have been added to them to show other roads, But they differ in terms of the type of use and their percentage; in the western side, Omran expanded within the orchards of Qandi and the introduction of more than half of the basic plan, while the western parties became represented by the valley and orchards of Basair, which is LULC and by $100 \%$ owned by residential homes for the owners of these LULC with the beginning of a residential suburb represented by the suburb of Al-Bu Assaf, which is far from the center of the city of Hit. This axis witnessed the emergence of urban uses such as wholesale stores, factories and industrial workshops.

## Second: Brier's method in determining the area of urban rural periphery

## 1: Steps to work in Brier's theory

1- The researcher should have a clear picture of the rural LULC as well as uses that fall within the competences of urban areas.

2- A map of the entire urban space. As shown in Map.
3- Covering the cadastral framework of the city with common circles that diverge from the city center at equal distances and give each circle a distinctive number.

4- Urban/rural percentage extracted from LULC map via GIS Arc map10.8.
5- Making a root in which the scope number and percentage of LULC
6- Draw a Briar triangle with a triangle with a base up and divide each side into four percentages $25 \%, 50 \%, 75 \%, 100 \%$.
7. The completion of the calculation LULC in common domains is the center.

8_ After completing the distribution, it becomes clear to the researcher the urban areas within the urban periphery or within the rural periphery.
9- The prohibition percentage is extracted if the percentage of land uses is more than $50 \%$, and if the percentage of land uses is less than $50 \%$, it is rural.
10- This technique was used in the past to determine the area of the rural urban outskirts. This technique was previously drawn by hand, and the ranges were determined by the geographical researcher, especially in the study of the urban-rural outskirts of the cities of Mosul and Nasiriyah by the geographical researcher Salah Hamid Al-Janabi in his book Urban Geography Foundations and applications of the University of Mosul in 1997. At present, this technology has been used and drawn using Geographic Information Systems (GIS) programs.
11- Fourteen sectors were chosen to cover the cadastral frame of the city with common circles from the city center towards the outskirts at equal distances, and each circle was given a unique number.


Map (3) Study Area LULC Classification Map

## Study Area LULC Classification Map

The urban/rural percentage was extracted from the LULC map by field survey and satellite visualization.

## Brier's method of determining the area of urban periphery

The scientist (Smith) in 1937 AD is the first to name the rural-urban periphery area, when he dealt in his study of the urban fringes area of the city of Louisiana, and Harris also pointed to the need for urban studies to pay attention to the areas surrounding the city in 1942, and the impact of some factors on its growth and extension, as for Iraq, the interest of urban geographers revolves around the urban functions provided by the city to its back, and the analysis of land spread patterns within
the city, and some recent studies were also interested in studying the area Urban-rural periphery, which some researchers have considered to be outskirts, or as a tide of urbanization at the expense of LULC adjacent to the city.

This method was used in an applied study on the cities of Mosul and Nasiriyah. The outskirts of the city of Mosul were determined by drawing the zones surrounding the city and distributing them into about nine zones. A distance of one kilometer was taken for each frame for both sides, the right and the left. What is striking in these shapes is that the first four zones are included within the outskirts. Urban and rural, while the rural outskirts appear in the remaining zones, in the city of Nasiriyah as well, the same method was used to define the area surrounding the city. A distance of 250 meters was taken for each frame and divided into 15 zones. The first seven zones are within the urban zone, while the rest are within the rural zone, ( Al-Janabi, 1997, 374-384).
While other studies characterized the urban periphery area, foremost of which is what Breyer proposed, as the urban periphery area was considered an integral part of the city center due to the high density LULC of residential, commercial and industrial land uses, while the second range is less densely populated than the average density throughout the urban rural periphery area, in which the proportion of LULCis higher compared to uncultivated and abandoned land, and the rate of population increase and change LULC, and in this study the Breyer method was used to determine the periphery area. Urban, the on-site method that depends on geographical characteristics is as follows:

## Third: Application method of Breyer's theory in determining urban periphery areas in the study area

By applying Breyer's method in determining the area of the parties, it was divided into two sides, one the right and the other the left, and the criteria that were used differed by setting the ratios of land uses for each side. We may find that the right side has a greater ratio of LULC than the left side and is included in the plan. The main part of the city is the left side, where the percentage of land uses is lower than the right side, which consists of green spaces and waterfronts, and its residents practice land cultivation, agricultural crops, and desert areas.
LULC varies in the study area vary between urban and rural area, as these urban agglomerations are divided by the river and distributed on its banks, as the take uses the form of extensions with the river and transport lines, leaving some areas of rural agriculture penetrating into the urban agglomerations, which affected the rates of urban uses in each of the study areas.

Through the application of the Brier method in determining the periphery area, a city appears in the form of a compact urban agglomeration on the right side due to the concentration of LULC homogeneously in each direction, while the use with transport and communication lines, which leaves agricultural or empty areas moving from their general structure, which affected the rates of urban use in each of the areas surrounding the city during the application of Brier's method in the periphery area, as the internal and external boundaries of the outskirts of the city of Hit have been determined Taking 300 meters distance for each tire as a standard for this city, the value of 300 m was chosen for the small cadastral area of the city in addition to achieving accuracy for each range, as well as comparing with previous studies, the value of 250-500 was adopted according to the spatial space of the city and the opinion of the researcher. and in each of them the ratio of two uses in each frame is extracted between the right and left sides due to the high concentration of urban uses on the right side The urban ratio there was high and Table (1) and Figure (1) show the distribution of the rows of the 14 sectors surrounding the city of Hit on the Brier triangle and what is remarkable in all these numbers is that the first four ranges are located within the urban periphery because they fall within the basic plan of the city.

In the fifth and sixth range, the proportion of urban right side which we mean (the right bank of the Euphrates River) is more than the left side(By which we mean the left bank of the Euphrates River), because of the intervention of annexed parts of the eastern and western visions and the southern desert region in addition to villages and agricultural orchards and parts of the Euphrates River, while in the seventh and eighth range, the proportion of the right side is more than the left side, due to the introduction of parts of the suburb of Albu Assaf (Amina neighborhood) And parts of the Maamoura area or parts of the plateau area and desert areas and enter the Bakr neighborhood of this sector but in the ninth range is the right side more than the left side and the presence of orchards and desert areas and the eyes of Qairia in addition to its distance from the city center and be where the lands of ownership (low productivity) and limited to parts of the village of Albu Assaf Maamoura and Jaroura and shows the phenomenon Oozing in some areas, but in the tenth range, the proportion of the right side range is more than the left, this is due to the inclusion of some sides, desert valleys, Qairiya springs and water ponds, as well as agricultural uses represented in the Hammadi area and the nursery or on both sides of the Euphrates River, and agricultural area represented by the eastern visions areas with an urban spread in the areas of the globe, in addition to the presence of a nearby gas station at the entrance to the city and agricultural areas extending to the Kubaisa district and the road extending to Recently, and beyond the suburb of Albu Assaf and on the other hand represents the extension of urban towards the area of Zwayat Albu Nimr on both sides of the road until it reaches rural area, but in the range of 11 this sector includes complexes, stores and industrial workshops within the area extending between the railways and the road Street General Hit Gray and Hit Haditha, as well as the presence of urban spread within the Maamoura area and also the presence of residential complexes, including the Maamoura residential complex.
As for the remaining areas, they are rural lands, part of which includes poultry fields and pens for raising sheep and livestock within the southern and southeastern side, while the eastern side is parallel to the main road, with a number of residential houses spread due to the private property of the owners of these areas, and the other side is the urban extension Towards the area of Zwaya AlBunimr towards the village of Banan. In the range of 12, this range includes the areas of Hammadi, the nursery, industrial stores and workshops, especially in the eastern side of the city, and also includes large desert lands with clusters on the outskirts of the globe and undulating lands towards Kubaisa, and on the other hand, the presence of urban extensions towards the corner of Albu Nimr, while in the range of 13, it includes the areas of temples and parts of the areas of Al-Khoda and urban spread, especially in the Maamoura region and on the main road towards the Euphrates River, this area has witnessed a significant expansion of the so-called (The overlap area) between rural and urban and the presence of a number of residential houses within this side, which amounted to 56 houses with the presence of educational institutions and isolated stores within the temples area, in addition to scattered houses of no more than 20 houses within the Maamoura area, Jarura, industrial workshops, municipal laboratories and residential houses scattered on the northwestern side of the right side 68 houses in addition to schools and on the other hand be a rural extension - Urban along the main road until it reaches the corner of Albu Nimr, but within 14, this sector includes a number of residential houses scattered amounting to about 57 houses with means of service and shops, especially in the area of confined and temples between the main street and the Euphrates River towards the areas of Mohammadi and towards Al-Khodah.

In the south-eastern side, it is devoid of dense houses, not exceeding 21 residential houses within the Maamoura area, some of which are residents of the city, and we take from the new sites the place of residence because of the license of the land and the social factor is housing from its proximity to its cousins in the form of spread and the lands are desert, including agricultural area, while on the northern side towards between Hit and Haditha, it is agricultural area whose inhabitants own these lands, but on the other side opposite it, it is witnessing an extension of Rural-urban on the main road towards the Euphrates district.

Table (1) Percentage of Urban Uses in the Study Area

| Range | Left side \% | Right Side \% | Rate |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| 1 | - | 100 | 100 |
| 2 | - | 100 | 100 |
| 3 | - | 95 | 95 |
| 4 | - | 61 | 61 |
| 5 | 40 | 60 | 40 |
| 6 | 36 | 50 | 36 |
| 7 | 30 | 31 | 30.5 |
| 8 | 34 | 41 | 40 |
| 9 | 25 | 26 | 33 |
| 10 | 17 | 27 | 21.5 |
| 11 | 15 | 24 | 21 |
| 12 | 10 | 6 | 17 |
| 13 | 5 | 4 | 5.5 |
| 14 | 3 | 3.5 |  |

Note: The rate in Table (1) is represented by applying the following equation:
Right side + left side \%2 = average.
Rate: The percentage of urbanization on both sides
Right side: Percentage of land cover use on the right side
Left side: Percentage of land cover use on the left side.
It is an engineering model based on percentages only, but it is noted that it is included after personal decisions in determining the ranges through the researcher's diligence in determining the type of investment, whether it is urban or rural.


Figure 1 Proportion of urban uses in the study area
Source: From the work of the researcher based on Table (1)


Visible (2) Ranges of Urban Rural Periphery of the City of Hit according to Breyer's Theorem


The ring in red represents the boundaries of the city center area. As for Zone 13, it represents the end of the city center boundaries.

The first triangle represents its base upwards, and each side is divided into four percentages: $25 \%$, $50 \%, 75 \%$, and $100 \%$. The right side is bounded by the percentage of rural use and the left side by the percentage of urban use, while the base represents the percentage of rural to urban use. Here the total of the urban sides and the rural sides consists of Energy Rural Urban Outskirts After completing the calculation of the percentages of LULC in the zones, their numbers are calculated on the base of the triangle to determine the location of the zone in the outskirts area. After that, the geographical triangle is drawn by the geographer for the right side and the left side, each one separately.

## Fourth: Geographical analysis of the periphery area of the city of Hit

When looking closely at the visual data of Table (2) and combining them with field surveys, the following can be included:
If we look at the city of Hit, we find its shape beginning close to the ring by virtue of the position and the walled castle in its early stages and the city tried to accompany the river and erect for reasons related to defensive aspects and climatic conditions and factors related to securing the needs of life in many of the necessary life facilities and will give a more accurate explanation and for each side of
the banks of the Euphrates River, on the right side the city appears near the gathering This is because urban activities went in a way with this direction, while the new use after 1980 was represented on the left side (the direction of Al-Bakr neighborhood) and taking the method of jumping across the Euphrates River and the orchards of soil villages in the form of a longitudinal nucleus with the extension of the road of Hit Zwaya Albu Nameast of Hit shows the villages of Al-Nuaimiya, Al-Rayess, Sulaymaniyah, Atat, Al-Hassaniya and the villages of Banan in the west, leaving agricultural and empty areas that penetrate within its general structure, This affected the proportions of urban use in each area surrounding the city. When we tried to draw the internal and external boundaries of the outskirts of the city of Hit in a Briar way, as indicated and observed in the visual (2) and we adopted a distance of ( 300 m ) for each frame as a fixed criterion. The value ( 300 m ) was chosen due to the small area of the city, in addition to achieving accuracy for each scale, as well as comparison with previous studies that relied on choosing a value of 250 to 500 meters according to the spatial area of each city and the opinion of the researcher. The variation appeared in the proportions of the LULC (urban and rural) in each frame within the same range and in both sides, and due to the historical planning factor, we found the high concentration in urban use appeared on the right side and the urban percentage was higher.

Table (2) Pronunciation in Hit City Center

| Range | Area (hectares) |
| :--- | :--- |
| 1 | 20 |
| 2 | 59 |
| 3 | 98 |
| 4 | 137 |
| 5 | 177 |
| 6 | 216 |
| 7 | 255 |
| 8 | 295 |
| 9 | 334 |
| 10 | 373 |
| 11 | 412 |
| 12 | 452 |
| 13 | 491 |
| 14 | 530 |
| 15 | 569 |
| 16 | 609 |
| 17 | 648 |
| 18 | 687 |
| 19 | 727 |
| 20 | 766 |
| 21 | 805 |
| Total Area | 8660 |

## Source: Researcher work by visual accreditation (1-2) for the city of Hit

The concept of regions in the city center of Hit: The scope: It is the scopes of the urban rural outskirts area from the city center towards the outskirts to distribute the ranks of the sectors surrounding the city center of Hit on a triangle of Breyer for each side and the city as a whole. The Breyer method was applied in defining the study area in the form of zones and these were formed. The ranges are about 14 ranges, and the right and left sides can be distinguished by focusing on the percentage of land uses.

It is in the first four pronunciations $100 \%$ and this percentage continues to lead for this aspect until the last region, where the ratios converge $24 \%$ corresponding to $10 \%$ and $6 \%$ corresponding to $5 \%$
and $4 \%$ corresponding to $3 \%$ for the area 12-13-14 respectively and as indicated in the attached figure and table (2) to distribute the ranks of the sectors surrounding the center of the city of Hit on the Brier triangle for each side and for the city as a whole.

It is seen in these forms that the first four bands fall within the rural urban periphery, in other words, within 1200 m from the central city, while the image of the urban rural parties appears in the remaining ranges, i.e. in the other four kilometers, and this confirms that the urban impact of the city of Hit continues to be far from the central city more than 5.2 km . The urban impact is concentrated in a high percentage in the city as it moves away from the city center and the urban impact decreases, but at the present time the study area has entered the beginning of the urban impact because it is a city that expanded towards this area and gained great importance. The effect varies on both sides, it is in the form of urban spread and sometimes an urban extension on the right side, while it is in the form of an urban extension Rustic on the left.

Also, the signature for each band on both sides of the city differs, as it accumulates on the right side, while deviating outward on the left side, especially the last bands, while they are close to moderation throughout the city.

In light of this, we can distinguish within each range urban sectors of different proportions in what they exploit from the area of the range, and this is normal when suburbs arise far from the central city in the areas confined between the city of Hit and the suburbs develop in its early stages with transport lines, as is the case in the area between the central city and Al-Khoda to Mohammadi road - Ramadi - Hit, as well as with the extension of the road Hit - Baghdadi - Haditha.

It seems that the urban impact of the city of Hit decreases with distance and at a faster rate on the left side. By urban influence, we mean the effect of the city on its surrounding area.
And if it were not for the presence of human determinants, especially orchards and agricultural land owned by the people on the right side and their control over large areas, the urban rural periphery would have turned into urban periphery - rural - and then to the nearby countryside.

## CONCLUSION

1- Through the application of the Briar method in determining the rural fringes, it is clear that it is possible to adopt the method with the field and the use of satellite visualizations.
2- Through the study, we showed the variation in the proportions of urban and rural uses in each framework within the same range on both sides. The urban rural outskirts area is located outside the basic plan of the city of Hit. This area contains a lot of empty lands and scattered residential houses. It contains a mixture of land uses, including residential, commercial, industrial, and services, and each use has its own spatial area of the land area.
3- We found that the high concentration in urban use appeared on the right side of the first four areas $100 \%$ and these percentages continue to lead this side until the last pronunciations.
4- The image of the rural urban periphery appears in the remaining ranges, starting from the range No. (7) to the last.
5- The urban impact of the city of Hit continues to be far from the central city for more than (5.2 km).
6- The urban impact of the city of Hit seems to decrease with distance and at a faster rate on the left side.

## Recommendations

1- The need to know the detailed land uses, the social and economic characteristics of the population and other important data and indicators in the city.
2- Include these areas among the priorities of the administrative authorities and divide them environmentally and spatially for urban suitability through the regulation of land uses.

3- Setting important criteria for such areas so that selections can be made to determine the efficiency and adequacy of the services provided to them.

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