

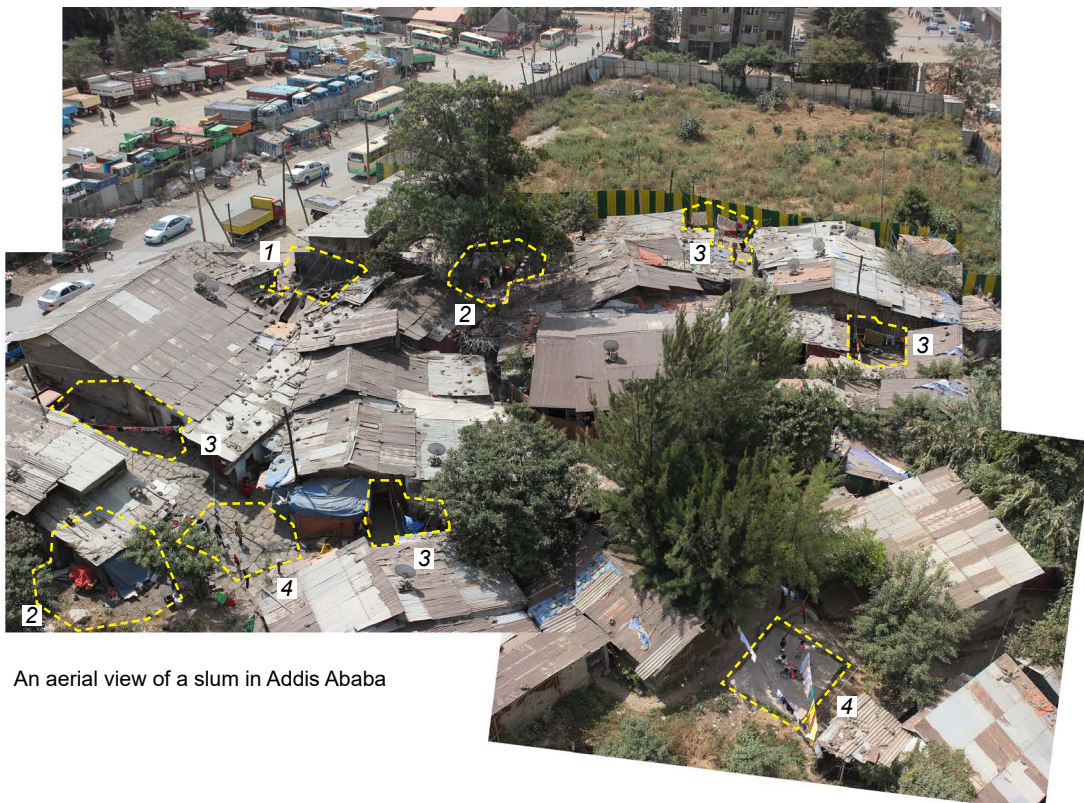
THE RHYTHM ANALYSIS

an attempt to look into Addis Ababa through Lefebvre's eyes

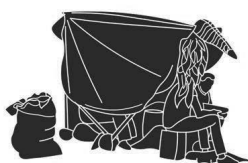
The rhythm analysis can be performed by using many different methods, in various urban areas or non-urban contexts, and by different actors. This article will talk about the experience with rhythm analysis during my masters studies in architecture, which was the consulted method for defining a critical view on the numerous problems in rapidly developing urban environments. The context of the presented rhythm analysis was in Addis Ababa, Ethiopia, where fascinated by the colorful life of the informal settlements and their contrast with the newly developed areas, an attempt of looking at this reality in an objective view was performed.

As an architecture student, there was also an artistic part of my trainee, which resulted in exploring my own perception of the urban environment, through visually analyzing. The rhythms, in this project, created the key point to define new paradigms to observe and represent different urban scenarios in Addis Ababa. Therefore, the first part of the analysis consisted of specifying the paradigms that would be used in the research, and the second part was the application of these concepts in the selected urban fragments in the city, in order to find out what came out of their interaction.

In other words, the main objective of this analysis was to categorize the information that was gathered in the site explorations based on different type of rhythms. Mainly concerned with identifying and defining the major rhythms in the selected areas, the analysis classified them depending on their type as the base rhythm, additional rhythms and the rest. The outcome of this analysis was used in the graduation project for exploring new design methods in housing, which aimed to be an alternative solution for the replacement of the informal settlements.



An aerial view of a slum in Addis Ababa



1 Commercial Activities



2 Production Activities



3 Domestic Activities



4 Social Activities

The picture above gives a general idea of the life in the slums of Addis Ababa, where the built environment has been shaped through the people's daily activities and movements. For this reason, the slums can be seen as a catalogue of spaces, presenting the traditional lifestyle of the city. From my perspective, the spaces could be distinguished in four main activities; domestic activities, social activities, commercial activities, and activities related with production.

The domestic activities were mostly performed by women and were manifested as collectively washing clothes or preparing food. Social activities would be the inhabitants stopping by for a small chat, or kids playing games outside, while the production activities consisted of drying vegetables or preparing other goods to sell. The commercial activities would be selling these goods. The organization of these small urban fragments were versatile enough to foster this large variety of actions and rhythms, providing the area its liveliness.

Why Rhythms?

The concept of rhythm was introduced to me while reading the critical essays of Henri Lefebvre and became the main reference of analysis in my graduation project. Through this theory a research of different urban scenarios in Addis Ababa has been established, and a new architectural design methodology was formulated. What Lefebvre explains is that the city is formed by a system of signs and codes, which altogether create the unique patterns of inhabitation of an area. If this system is interrupted, the direct relationship between the citizens and their environment will be broken, and as a result, autonomous urban situations will be established¹.

Furthermore, a rhythm decides the sequence of certain intervals and works as the catalyst element in generating any new order². Just like in music where there is always a certain tempo that creates a base for the melody that will be played upon, in the context of a city, the rhythms create the base structure in an urban environment for the daily life to be performed consequently.

In my observations, the urban environment occurred in two different ways: a restrained, versatile built environment, where the human actions took the primary stage, and a more oppressive built environment, where the buildings or other static forms in the surroundings dominated the whole area. According to Lefebvre, this difference has been explained as the socially produced and mechanical space. Seeing these two kinds of spaces as reproducible or spontaneous, the mechanical space would be the product of repetitious actions³. On the other hand the social space would not even be considered as a product, but rather as the notion that permits the fresh actions to occur and their coexistence, stimulating their spontaneity⁴. In this analysis, I was mainly interested in pointing out this duality of space, and explore on which notions it depends on.

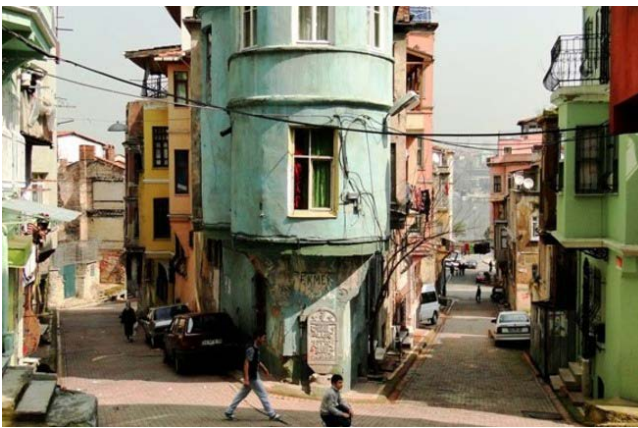


An initial collage of the graduation project, exploring how a rhythmical structure can foster different activities which can be found around Addis Ababa.

Starting with the Analysis

Based on the initial literature studies that have been made before performing a site analysis, I determined the base rhythm as the most static elements of a built environment; the buildings. I strongly defended the idea that the architecture present in a context has the biggest influence on shaping the rest of the rhythms, and directed the design intervention into a new exploration of the “correct rhythms” for an urban context. As an architecture student, I could not help myself to see the rhythm analysis as a proving ground of the life between the buildings.

Moreover, I approached my graduation project in Addis Ababa as an urban situation present in many developing cities and I wanted to open up the main differences of the citizens’ experiences in these urban scenarios. The main goal in this approach was to figure out in a spatial way the alienation in an urban area, the disconnection between different parts of cities, or the lifelessness in newly built neighborhoods. Being born and raised in one of these fast developing cities, Istanbul, I made a direct emotional connection with the subject, which engaged me more to the concept of rhythm.



Two different views from Istanbul. The first image is taken from the Balat district where the socially produced space is visible among the streets. The second one is an image from the financial district, Levent. The difference between the two different spaces that Lefebvre discusses is clearly visible.

The Case Studies

The analysis was made in three different locations in Addis Ababa. These areas were visited in the same time periods and different times in two weeks. The visits were arranged as regularly as possible, in order to grasp the more persistent rhythms of the selected areas.



The Slum Area, Merkato:

Merkato is the biggest informal settlement in Addis Ababa, as well as the largest market of Africa. During the Italian occupation a super imposed grid was built over Merkato, which provided its current urban structure. Within this grid, many activities related with production and consumption take place, giving its inhabitants the possibility to work, trade and live in the same area. In this district, it is possible to experience the traditional lifestyle of the citizens which happens to be quiet and very active at the same time, and one cannot avoid to participate in this magnificent urban fact.



The Mass Housing Area, Condominium:

Condominium housing project is the most common mass housing project of Ethiopia. The rigorous architecture and the distribution of buildings in these dwelling units dominate the daily life, creating unusual urban scenarios in the city, especially comparing with the liveliness of the informal settlements. Nevertheless, the inhabitants of these districts have found their own ways make their spaces more unique and meaningful, thanks to the shared areas inside the buildings such as the corridors or staircases. These shared spaces are where all the social and domestic activities happen, creating an active daily lifestyle.



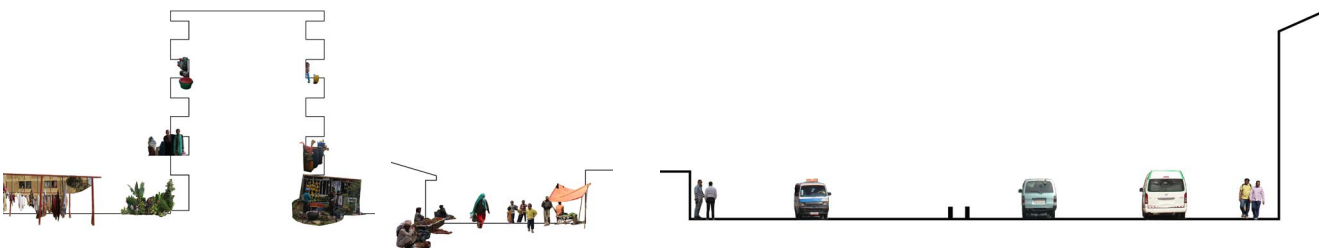
The Newly Built Area, Bole Road:

Bole Road is one of the newly developed areas of Addis Ababa. It has always had a significant importance for the city as the road that connects the city's airport to its center and around fifteen years ago it has been expanded in order to host a bigger motor traffic. The implementation of this large scale infrastructure created the demand for larger scale of buildings and activities such as new commercial and financial functions, creating a sort of alienation for the citizens. In fact, this district of Addis Ababa has a very different language than the rest, resulting in a silent and less active daily life performed by citizens, while it became dominated by fast mobility.

Methods of Observation

In this project, the methods of observation occurred in different steps, from a broader perspective to more detailed. The analysis started within project groups of four people, and were further developed individually. Starting with site visits in these groups, the initial goal was to experience the outstanding differences and similarities between the selected sites, therefore to get an idea of the broader image of different urban scenarios within the city. These experiences were documented through photos, sketches and maps.

The visualizing of results was necessary for communicating with fellows and outsiders and to be able to make the next step in the research. As groups we used different methods of representation to achieve this. The findings of the initial research were illustrated in section drawings. For each visited area, a section drawing was made together with other group mates, and the common elements in these areas were represented through the collage technique. Section drawings were effective to explain the difference in scales in the chosen urban areas and the elements and activities of the city that appeared within this scale change.



Section view of the Condominiums

Section view of Merkato

Section view of Bole Road

In the later stages of the rhythm analysis, these sections became the key point in extracting the material for observing the different types of rhythms. These were the similar elements present in the selected sites and the rhythm analysis resulted as the further exploration of the various spatial experiences generated by the frequency and variety of these elements.

Categorizing the Rhythms

Following the first two methods of observation and documentation, the common elements and actions which were present in these urban areas were categorized as three main rhythms. It was interesting to see how they derived from the traditional lifestyle of the citizens, and reflected the essence of Addis Ababa. These three main rhythms were visual paradigms that were identified by me, as an architecture student. They were repeated all around the city, creating different scenarios based on their frequency. In the rhythm analysis, these elements were represented with different icons, in order to make their mapping easier.



a) **Additional Physical Elements**



b) **Non-Physical Gathering Points**



c) **Repetitive Human Actions**

● **Additional Physical Elements:** The citizens of Addis Ababa are very creative and often they intervene with the built environment by adding new small-scale architectural objects. These objects are mostly portable food stands, benches or stools, shading objects, street sellers/shops. Any kind of element that created a different space in the built environment can make part of this group.

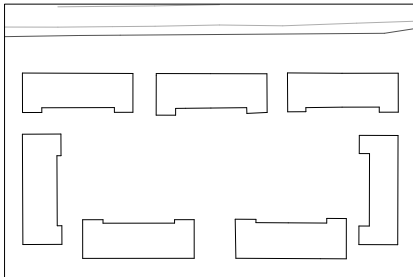
■ **Non-Physical Gathering Points:** In Addis Ababa, the social life happened mostly in the streets. The streets host many different types of social activities, and these activities contribute to creation of new rhythms. An example to this would be the men gathering in small groups and talking to each other. Or the women gathering together for washing clothes, or preparing food. These actions generated different types of spaces in the city, creating at the same time invisible levels of privacy.

▲ **Repetitive Human Actions:** In many districts of Addis Ababa, the human actions prevail, more than the built environment itself. They consist of the movements based on the functions in an urban area, such as people doing shopping, or going to work or to school. As they give the significance of any selected area, their presence is fundamental in creating different and valuable urban scenarios.

These three main rhythms are the paradigms that made the visual manifestation of daily actions possible as well as assisting me to set a clear regulation on how to proceed with the analysis. Their representation into icons with different shapes and colors are based on purely artistic preferences, to make their differences more clear in the succeeding diagrams.

Documenting the Rhythms

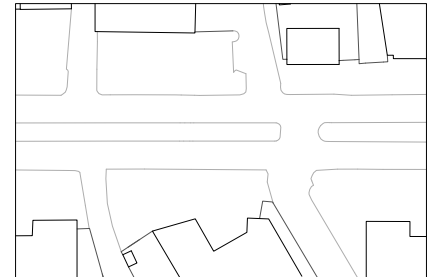
The next step was to transform the language of the site observations into the representation of rhythms. In order to achieve this, several steps have been taken. First of all, a fragment from each of the selected sites was chosen. It was fundamental that this fragment would be in the same scale in each of the sites and therefore in the same dimension. The dimension of the fragment that was taken into consideration in this analysis was of 50 meters to 80 meters.



Fragment of the Condominiums



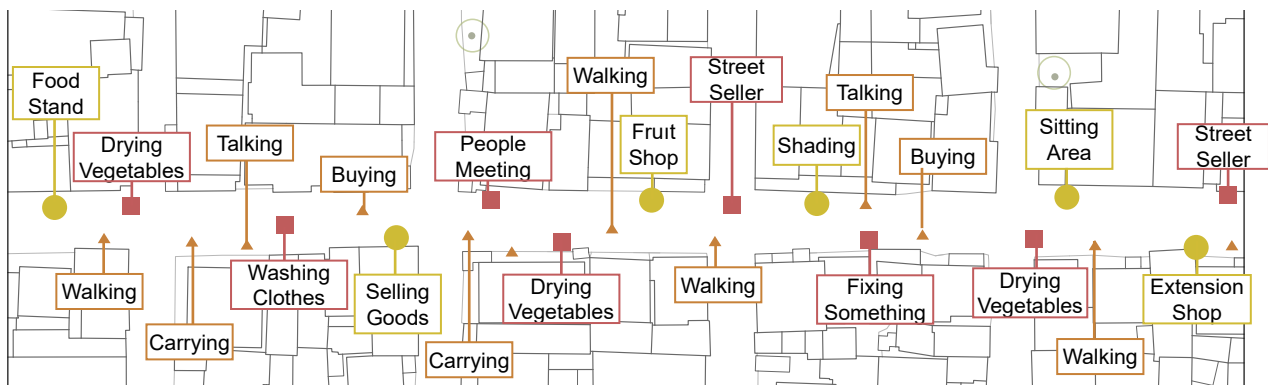
Fragment of Merkato



Fragment of Bole Road

The following step was illustrating the rhythmical elements using a map or a plan view of the sites' Fragments. This was necessary for showing the frequency of the rhythmical elements within the same spatial fragment, and where on the site they took place. These elements were assigned in their spots by using icons that represented their type. It was important to be present in the selected areas around the same time period in each visit. The diverse elements were documented through the usage of maps.

In the following section, I will explain each step of creating the diagrams by using the case study of Merkato:



Creating the Diagrams:

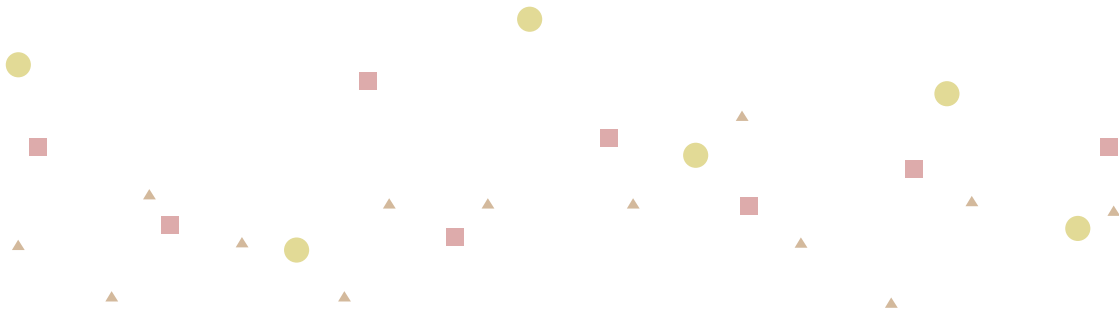
After assigning the rhythms' icons to their locations, the next step was to transfer these findings to a different platform, a blank paper. This would be the final representation of the rhythms, and the main step for creating the diagrams. The diagrams would indicate what type of built environment the rhythms were manifested in, and what frequency of rhythms were present in the given environment.

Firstly, the icons representing the different types of rhythms were extracted from the map and transferred to the blank paper within the same order that they were presented on the map.



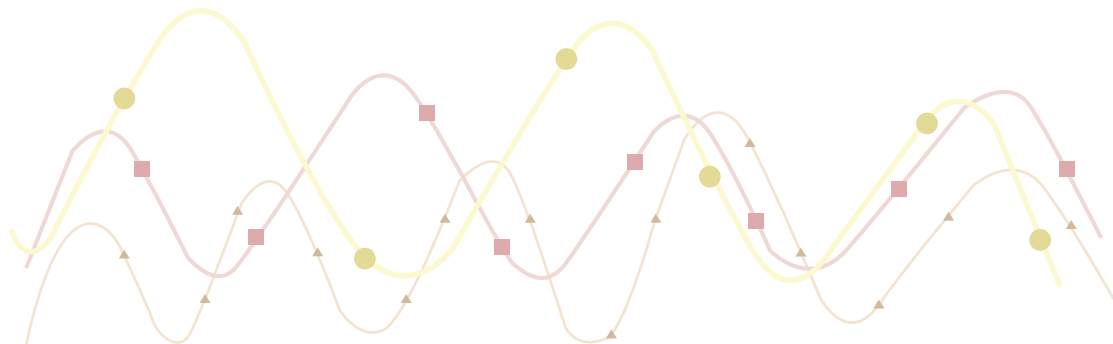
Rhythms Diagram 1st Stage: Transferring the information to blank paper

It was important not to forget that although these rhythms were categorized in three different main groups, they manifested themselves differently in the built environment. Every occurrence has a specific intensity and in this analysis, I translated the intensity into the height of the curve. This positioning created the waves of the illustration of rhythms.



Rhythms Diagram 2nd Stage: Illustrating the diversity of rhythms

The final step of the diagrams was creating the waves. This was simply accomplished by connecting the icons together with lines. What was interesting though, was to discover that the frequency and variety of the waves was achieved thanks to the diversity of the rhythmical elements, making it visible that this diversity itself creates the rhythms. If we think about this situation in real life, it will be effectively true that more diverse elements we see on the street level, more diverse rhythms we can recognize in our surroundings.



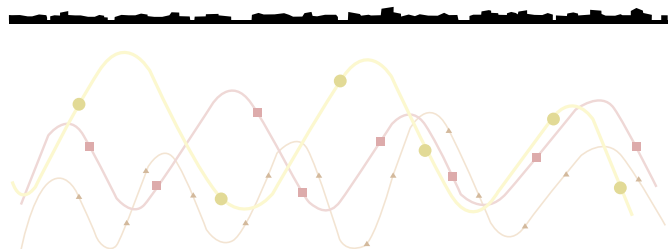
Rhythms Diagram 3rd Stage: Connecting together the rhythm elements and creating waves

The Results of the Rhythm Analysis:

Merkato:

In the first case study we can observe the successful connection between the scale of Merkato's architecture and its inhabitants. The built environment in this area is flexible enough to foster a large variety of activities, and this quality can be proved in the rhythm analysis.

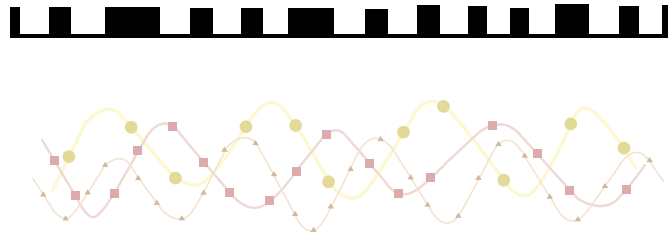
As the rhythms of daily life prevail over any other notion, the order of this area becomes one, unique, and a smooth urban fact that everybody can easily take part in.



Condominium Area:

Condominium Area was an interesting case to consider in this study, within the context of rhythms. Dominated by a rigorous architectural language which is possible to experience from many aspects, this mass housing project did achieve the right scale and elements to provide new grounds of action to its inhabitants.

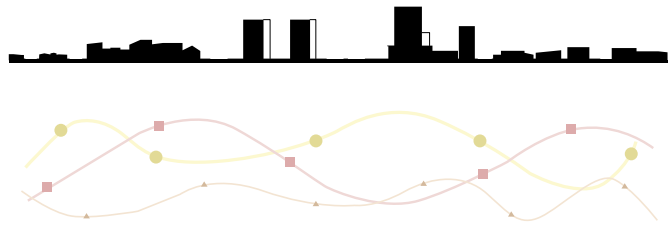
This quality is visible in areas such as the balconies that surround the buildings or the shared courtyards. Therefore, although the first impression that these areas give is quite monotonous, the active rhythms of daily life are present within the buildings' open spaces.



Bole Road:

On the other hand in Bole Road, we are facing a completely different urban scenario. Because of the scale change in infrastructure and buildings, it is hard for the inhabitants to perform the active daily life as they do in the informal settlements or other dwelling and working areas.

The new infrastructure is intended to improve the connectivity within the city in a large scale, however this causes negative consequences in the small scale such as: disruption, disconnection and division. This situation is also visible in the silence and sameness of the rhythms that correspond to the area.



Conclusion:

I did the rhythm analysis as an architecture student, at the beginning of my masters thesis. My main concern in the analysis was to find new methods of representation of the built environment I was experiencing. During my studies, it happened quite often that I found myself asking, "What am I looking at?" and I was very curious of the result in finding an answer to this question through rhythm analysis.

The object of this analysis was not to prove a scientific point on the observed case studies, nor to make a solid statement about how the cities should be planned. I defended the main concept of rhythm as a method of researching the relationship between architecture and everyday life, which happened by creating my own rules of observing a given built environment. The objectivity in this analysis was achieved by following the same rules and the same steps in the analysis of different locations.

The rhythm analysis I carried out in Addis Ababa inspired me in discovering new rhythms as possible forms of architecture. In a period of rapid development in the cities, it is unavoidable to prevent the radical changes that cities like Addis Ababa will be facing in the short future, in order to implement new infrastructures and to host new functions. What is important to consider is not to leave behind the current vibrant lifestyle, but to learn from it and implement it within a new urban order.

For this reason, what was crucial in the next step of the project was to analyze in which conditions the rhythms of the daily life were performed and to use these findings in the implementation of the new architectural intervention. In this perspective, the project itself can be seen as a design process towards the realization of a new urban order that has the ability to provide the successful rhythms, therefore, the correct forms of architecture which enable the life patterns in that area to be developed in an effective way.

References:

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