

# Natural geography in the thought of Professor Dr. Mahdi Muhammad Ali Al-Sahaf

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## ABSTRACT

The study of the top Iraqis geographers was serious scientific studies theoretical and application in the areas enrich geographical thought firstly, and its applications in different geographic branches secondly. Also, there is a wealth of modern geographical literature and theories attributed to many geographers who have provided multiple substantive contributions in this area. Hence, the importance of our study came as one of the scientific bases that the Iraqi geographers depend on. Dr. Al-Sahaf is the pioneer of geo-goers in Iraq, the study aims to characterize his role by as one of the pioneers of modern geographical thought, because his compositions included a lot of ideas and concepts, which are today one of the important bases in the Physical geography .

**KEYWORDS:** :geographers, hydrology, geomorphology, Russian Geography School.

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the Iraqi Geographical Society until he passed away in 1993.

### 1. Study problem : -

The research problem is derived by saying the following: -

Is Dr. Al - Sahhaf a pioneer of geography in Iraq?

From this main problem, there can be secondary problems, which are as follows: -

1. What is the role of Dr. Al - Sahhaf in the natural geographical development in Iraq through teaching and supervision in studies of higher and senior studies?
2. What did Dr. Al - Sahhaf present in the geomorphological and hydrological fields and in the field of regional geography?
3. Has the methodology of Dr. Al - Sahhaf affected natural geography and what is his impact on university books, theses and dissertations?

### 2. Hypothesis of the study : -

The research hypothesis is that Dr. Al - Sahhaf is one of the pioneers of geography in Iraq and has a clear role in the geographical evolution too:

1. He has a role in the development of the branches of natural geography in Iraq through supervision and teaching.
2. He has presented many authored and translated books and terminology in the

## Introduction

There are many people who are interested in the geographical study in Iraq. However, few left the scientific footprint in the contemporary geographical revival such as Prof. Dr. Jassim Mohammed successor Prof. Dr. Mohammed Hamid al - Tai and Prof. Dr. Sideq Atroushi and Prof. Dr. Abdul Amir Al - Saffar and Mr. Abdul - Wahab al - Dabbagh , Dr. Ali Al-Mayah, Prof. Dr. Ibrahim Shawka, Prof. Dr. Nouri Al-Barazi, Prof. Dr. Ali Hussein Shalash, Professor Dr. Ibrahim Sharif, Prof. Dr. Hassan Al-Khayyat, Prof. Dr. Hassan Taha Al-Najm, Prof. Dr. Abdel-Moneim Abdel Wahab etc. However, Prof. Dr. Al - Sahhaf ( 1931 - 1993 ) is one of the pioneers who worked on developing the science of geography in Iraq. He is specialized in natural geography in the hydrological field through teaching the geographical subjects of different natural geomorphology and hydrology of natural and other resources. He taught many students who graduate as geographers. He has written and translated some of geography work.

So is Dr. Al - Sahhaf is one of the pioneer of the geography for his service to his country, and his supervision of many for master and PhD thesis. He wrote twelve books and translated two. He also wrote fifteen research papers. He held several positions, including a general registrar for the University of Baghdad for many years, then became head of the geography department in the College of Education, as well as a founding member of

1957 AD. Then he returned as a teacher at Bab Al-sheikh School to pursue the teaching profession and was granted a two-year period on 5/15-1960 AD. He then submitted his resignation on 11/24/1960 to complete his studies outside Iraq at the University of Moscow. He obtained a master's degree in 1962, and continued his studies at the same university for the purpose of obtaining his doctorate, which he obtained in 1965 ("Personal dossier of Professor Dr. Mahdi Mohamed Ali Al - Sahaf," 2020). The subject of his thesis was hydrology and hydrography of Iraq for a candidate of geographical sciences, Moscow University, and the number of thesis pages is (379) pages. Its title was obtained by correspondence with Moscow University on 11-23-2020 (Al-Mohsen, 1985).

#### **Work life:**

Professor Mahdi Muhammad Ali Al-Sahaf obtained his doctorate from Moscow University in Russia (the Soviet Union) in 1965. He was then reappointed to the position of Teaching Assistant in the College of Education, University of Baghdad on 05/23-1966. He was assigned to teach in the College of Arts on 26-1974-1973, until January 25-1976. He returned to the College of Education and assigned to manage its Geography Department on 10/4-1976.

He continued teaching at the College of Education, University of Baghdad, and obtained a professorship on 2/18/1990, and provided the Geographical Library with many books and solid scientific research.

He died on 6/13/1993 after he was admitted to the Medical City Hospital, Fracture Corridor, on 4/14/1993 with a bone tumor in the fourth cervical vertebra that led to partial quadriplegia. He underwent an exploratory operation to lift the tumor and stabilize the cervical vertebrae. He died because of the effect of a heart attack that led to the sudden cardiac arrest (may God have mercy on him) ("Personal dossier of Professor Dr. Mahdi Mohamed Ali Al - Sahaf," 2020).

#### **The most important books translated by Prof. Dr. Al-Shhaf**

1. weather, climate and meteorology (Khromov, 1977)
2. The translation of the book Introduction to the Study of Water Resources ("Personal dossier of Professor Dr. Mahdi Mohamed Ali Al - Sahaf," 2020).

#### **Second:**

The scientific legacy of Dr. Al-Sahaf in the field of writing books

geomorphological, hydrological and regional fields worth mentioning.

3. His methodology has influenced natural geography through his books and his supervision of university theses and dissertations.

#### **3. Study objective : -**

The study aims to introduce a pioneer of natural geography in Iraq and their role in graduating specialists in the various branches of natural geography to supplement the various higher education institutions with them.

This is done by reviewing the scientific career of Dr. Al - Sahaf and his role in developing graduate studies through teaching, supervision and scientific advice in addition to his research contributions. They are represented by a group of books, studies and research works, especially his interest in the natural aspect that includes several fields such as geomorphology, hydrology and natural resources. He wrote many distinct geographical books, particularly in pressing for hydrological. These have a reflection on the evolution the t geographical in Iraq.

In line with the research problem and assumptions, the study aims to:

1. Highlighting the role of Dr. Al - Sahaf by studying his books, researches, and supervising postgraduate research (masters and doctoral degrees).
2. Demonstrate the scientific method he adopted in his books and research, choosing the books that he translated into Arabic.
3. State the extent of the impact of his methodology on the books of geographical and natural messages in Iraq.

#### **First: His biography**

##### **Birth**

He was born on 12-26-1931 AD in Nasiriyah - Dhi Qar governorate. His mother's name is Wazeerah Ahmed. Dr. Al Sahaf married two women. The first was Amira Ali Idris, a teacher at the 14th July Intermediate School for Girls in 1969, and the second wife Amal Fadel Al-Azzawi was an employee. The year of marriage is 1981 and did not have children all his life.

##### **Study stages:**

He completed his primary and secondary studies and was appointed as a teacher at the Ismailia School on 1-10-1951, then transferred to several schools and continued with them until he obtained a study leave at the High Teachers House on 4-11-1955 AD until 6/25-

Table No. ( 1 ) shows the scholarly legacy of Dr. Al-Sahaf in writing books

NO.	Book name	Year of authorship	The exact jurisdiction of the book
1	Water resources in Iraq and their maintenance from pollution	1976	Hydrology
2	Natural resources ( what they are , their definition , types , and their maintenance	1976	natural resources
3	Geomorphology ( definition , development, fields and applications)	1977 1978	Geomorphology
4	This is Mauritania " Studies in the modern geography of Mauritania "	1981	Regional
5	Geography of seas and oceans	1982	Hydrologist
6	Hydrology	1983	Hydrologist
7	The most important mineral resource in the Maghreb - phosphate scale	1983	Regional
8	Metallic deposits in the range of minerals in the Maghreb	1983	Regional
9	Irrigation and puncture in Iraq and the Arab world	1984	Hydrologist
10	Geomorphology	1985	Geomorphology
11	Natural Geography of the History Department	1990	Natural geography
12	Fundamentals of Applied Climatology	1992	climate

Table No. (2) the number and percentages of precise specializations in the books of Dr. Al-Sahaf.

T	The exact specialty	the number	The ratio
1	Geomorphology	2	16.67
2	Hydrologist	4	33.34
3	Regional	3	25

4	Climate	1	8.33
5	Natural resources	1	8.33
6	Natural geography	1	8.33
	Total	12	100%

The researcher depended on Table No. ( 1 ) to draw the above table.  
Figure No. ( 1 ) the number of subspecialties for Dr. Al-Sahaf's books

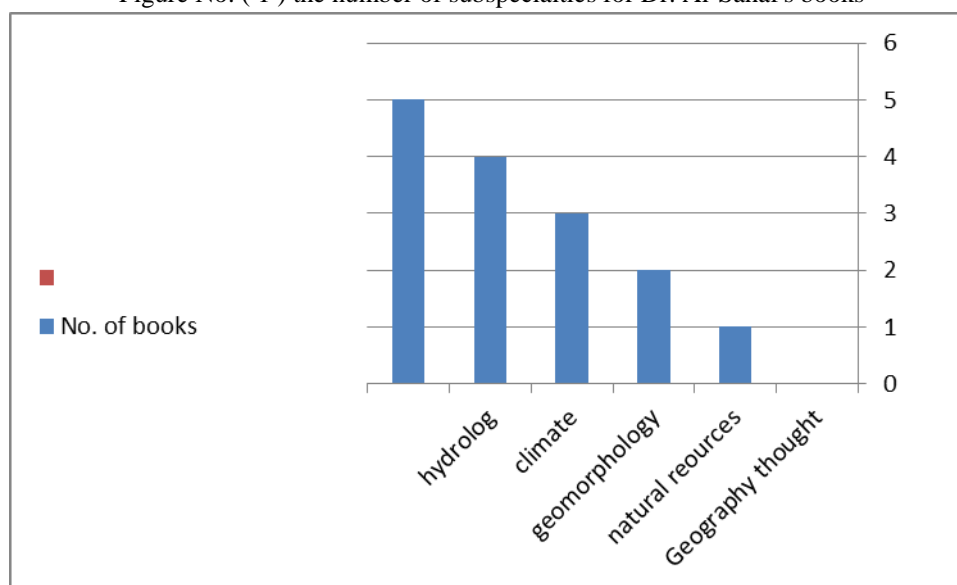
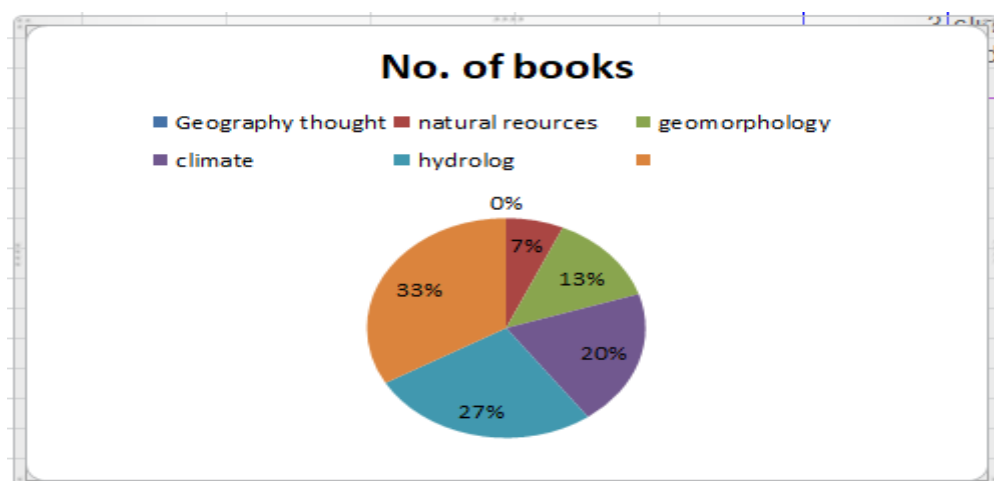


Figure No. ( 2 ) shows the percentages of precise specializations for the books of Dr. Al-Sahaf



according to Figure No ( 2 ) out of a total of (12) books and according to Table No .( 1 ) . The second is the regional field with a percentage of (25%) and by (3) books, and in the third place it came in the geomorphological field with a percentage (16.67%) by

Table No. (2) shows the scientific legacy of Dr. Al-Sahaf, in which the number of books in the specialization of climate varied. The books in the hydrological field came first with a percentage of (33.34%) and as shown in Figure ( 1 ) and by (4) books

over many other disciplines in the field of natural geography.

### Third

The scientific legacy of Professor Dr. Al-Sahaf in the published research

(2) books. The last includes three fields, which are climate, natural geography, and natural resources and by

(%8.33) by (1) book for each field. Thus, Dr. Al-Sahaf relied on his specialization in the first place in the field of hydrology, as well as the diversity of his composition

Table No ( 3 ) .the scientific legacy of Dr. Al-Sahaf in the published research

No.	Search Name	Year of Publication	Research Exact jurisdiction	Treatment method
1	Quarterly distribution of Iraq's river runoff and its relationship to irrigation and reconstruction projects	1969	Hydrologist	Quantitative analytical
2	River drainage and factors affecting it	1970	Hydrologist	Quantitative analytical
3	The location of the city of Makkah and its geographical environment	1970 1971	Geomorphology	Descriptive analytically
4	High spending in Iraq's rivers and its impact on development and planning	1976	Hydrologist	Quantitative analytical
5	Water resources, food and development in the Arab world	1979 1980	Hydrologist	Quantitative analytical
6	Water resources in the world, its present and future prospects	1982	Hydrologist	Descriptive analytical
7	Irrigation projects and their current and future impacts in Mesopotamia	1984	Hydrologist	Descriptive analytical
8	(A study of the Tigris River sediments Based on the physical model) ( Study of the Tigris deposits based on a natural model )	1984	Hydrologist	Quantitative analytical
9	Metallic deposits in the range of minerals in the Maghreb	1984	Regional	Descriptive analytically
10	The range of phosphates in the Maghreb	1985	Regional	Descriptive analytically
11	Inventory and evaluation of the Diyala River sediments and methods of reducing them	1986	Hydrologist	Quantitative analytical
12	Spatial variation of rainfall in the feeding basins of the Tigris River and its hydrological implications " A study in applied hydrology "	1987 1988	Hydrologist	Quantitative analytical
13	Hydromorphometry of Diyala River Basin " A Study in Applied Geomorphology "	1988	Hydrologist	Quantitative analytical
14	Hydromorphometry of Rafid Al Khouser Basin " A Study in Applied Geomorphology "	1990	Hydrologist	Quantitative analytical
15 <sup>th</sup>	Tigris and Euphrates Basin in Turkey " A Study in Applied Hydrology "	1991	Hydrologist	Quantitative analytical

Table No (4) the number and percentages of precise specializations and scientific methods of research published by Dr. Al-Sahaf.

NO.	The exact specialty	the number	Percentage %	Processing method	the number	Percentage %
1	Geomorphology	1	6.67	descriptive	0	0
2	Hydrologist	12	80	Analytical	0	0
3	Regional	2	13.33	Descriptive analytically	5	33.33
5	Think geography	0	0	Quantitative analytical	10	66.67
	Total	15 <sup>th</sup>	100%	-	15th	100%

Figure N0 (3) the number of precise specializations for published research by Dr. Al-Sahaf

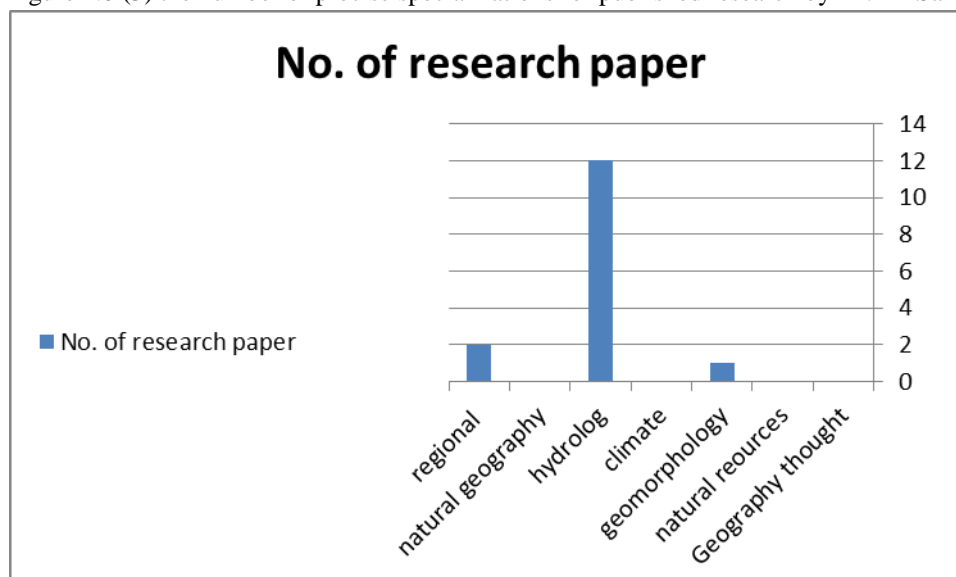


Figure No. ( 4 ) the percentages of the precise specializations of the published research by Dr. Al-Sahaf.

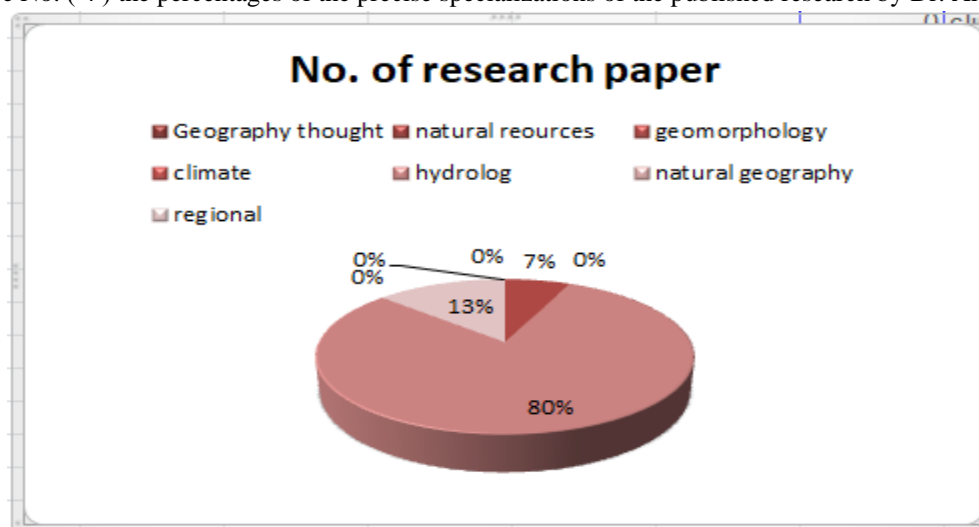
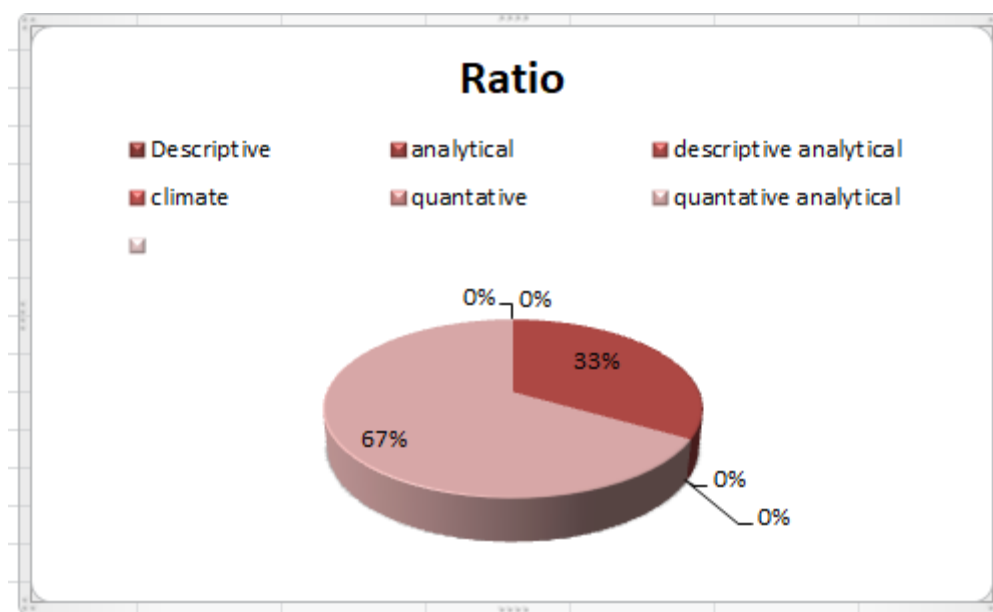


Figure No. ( 5 ) the percentages of the scientific curricula that Dr. Al-Sahaf used in his published research.



groundwater, that is, he adopted the analytical quantitative approach.

The third is S. A. M. Salhi (1988). It links between the climatic and hydrological fields. It used analytical and quantitative statistical methods to extract the standard deviation.

He also supervised Sharif (1989) who used mathematical treatments and programming as a quantitative method in geographical studies with quantitative and analytical methods.

Al-Ani (1990) is student supervised by Dr. Al-Sahaf in the year 1989. This work used mathematical and statistical treatments and programming as a quantitative approach in geographical studies through five chapters, including a number of figures, maps, tables and profiles to show these temporal and spatial relationships.

In addition, he supervised S. A. Salhi (1992) in her PhD thesis with the co supervisor Dr. Adnan Baqer Al-Naqash with the participation. It deals with an important and vital topic and it is within the precise competence of the doctor in conjunction with the hydrological field using adopted the analytical quantitative approach. This mean Dr. Al-Sahaf supervised six theses with analytical quantitative approach out of the total six.

To demonstrate and clarify the extent to which the Russian Geographical School from which he graduated affected Dr Al-Sahaf, this work shows Dr. Al-Sahaf has a good the scientific legacy. He always emphasized the study of hydrology accurately and in details. He is considered one of the founders of this field

(his major specialization) and this did not prevent him from studying other fields in natural geography as he was also interested in studying geomorphology and

Table No (4) shows the scientific legacy of Dr. Al-Sahaf with a number of research works on hydrological trends varied. They are arranged in the order of frequency. The first on hydrological issues (80%), according to Figure No (4) by (12). Also, figure No. (3) shows a total of (15) studies and according to Table No the regional field is the second (13.33%) by (2) research. The third is and the geomorphological field (6.67%) which is one study. I rely on the exact field of specialization, a hydrological dramatically and the order of the first. There are other works in other disciplines. Table no. (4) shows the curricula and it became clear that there are two types of approaches in the research, and the quantitative analytical approach comes in the first rank and its percentage is (66.67%) according to figure No. (5). Then, the descriptive analytical approach is the second at a rate of (33.33%). Fourth: The effect of Dr. Al-Sahaf's methodology on university theses and dissertations and the extent of his influence on the geographic school from which he graduated

Letters and dissertations supervised by Dr. Al-Sahaf There are a number of theses and dissertations that are supervised by Dr. Al-Sahaf such as Al-Hakim (1976) which is one of the early messages that were discussed at the University of Baghdad. Dr Al-Saharf relied theses on a different measuring aspects of the hydrological system of water resources and scientific methods was Its basis is the adoption of quantitative analysis as a method of study. He also adopted the analytical quantitative approach.

Another is Al-Mohsen (1985). In this work, the researcher used the qualitative analysis of



geography. It is the analytical quantitative approach.

## 6. Recommendations

This work recommends the following based on the conclusions above.

1. Taking care of the study of geography pioneers is one of the topics of contemporary geographical thought.
2. Encouraging researchers to document the results of the pioneers to inspire the originality and seriousness that characterized their research and to be a catalyst for the development of geographical studies at a time when scientific research methods have developed.
3. The necessity to focus on our Iraqi heritage and to create a new subject concerned with Iraqi geography and geographers that is parallel to the subject of geographical thought.
4. Archiving information on Iraqi teachers, including their CVs and scientific results, electronically, so that it becomes a general memorandum to be referred to and becomes a special identity for every Iraqi geographer.
5. Encouraging researchers to conduct studies pertaining to contemporary geographical thought. This is due to the reluctance of most of them to write in this field and their tendency to use quantitative methods and techniques that have recently emerged in geography.

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natural resources that the characteristics of the Russian Geographical School. He invented these resources, studied climatology, and the regional field with his study of the countries he was visiting. Thus, he relied on books and research works that he used to publish from authors from the scholars of the Russian Geographical School. He used his reliance on scientific sources and understanding of the studies in Russian universities and transferred their ideas to the Iraqi universities. It supplied the Iraqi and Arab libraries with books in Russian and English, and this indicates keeping pace with the developments. This is what geography has become today, and this is one of the characteristics of the Russian geographical school, which made geography a variable science as long. This is because it depends on natural and economic phenomena that are subject to change according to the stages it goes through . He wrote many scientific books in specialization and others, especially in the field of natural geography. It is distinctive for the Russian school and in his field of research published. He has proved to be creative, as he relied on the analytical quantitative approach first, and then came the descriptive analytical approach for his supervision of university scholars and dissertations. He emphasized all of the quantitative and analytical method, which is one of the basic features of the Russian Geography School. From the above, it appears that Dr. Al-Sahaf was greatly influenced by the characteristics and features of the Russian Geographical School in terms of his books, research works, directions of ideas and the approaches he followed in his legacy.

## Conclusions

1. The study of the early pioneers of geography is an analytical study that aims to shed light on the objective additions of Iraqi geographers. It then tries to evaluate them through comparing them with contemporary geography thought.
2. The books of Dr. Al-Sahaf in geography had a great role in his emergence as a pioneer geographer because of their enormous amount of geographical information.
3. Dr. Al-Sahaf relied on many scientific methods in writing his books. This means he used several distinct geographical approaches in every book.
4. Dr . Al - Sahaf used to write his books on many sound, good and new foreign sources.
5. The scientific approach followed by Dr . Sahaf through his methodology emerged through his supervision of dissertation and theses on



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