Scientific Approach in the Reign of Buveyhid Dynasty
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Abstract:
In this article the number of scholars and their scientific interests in the reign of Buveyhid period are discussed. Buveyhids are the most important Iranian-Shi'it dynasties appeared in the early history of Islam. They were so powerful who the Abbasid Caliphs had to obey them. According to their religion, Shi'it, they practiced the idea of democracy and all sects were free in their practice. According to this survey more than 350 scholars were known in this period, which is from nearly 320/900?- 450/1050. If we count their specialty, the number increases to about 714. What is interesting is that we can find all subject specialists in that time. They are from all religions and also Islamic sects. The number of Shi'it scholars is outstanding among them.

Keywords: Buveyhids, Scientific approach, Abbasid Caliphs, Islamic history, Shi'it dynasty

Introduction
The science of History is usually defined as the history of political activities of the kings, emperors, and those who have political power. That is, those who can change the political status of the countries or can change the physical borders are the main personages in the history of every country or nation. Dealing with the scientific approach or development in the history of countries although is not very common it is very important. Because even the most tyrant king or emperor is eager to show himself as the one who likes knowledge and supports the scientists. In this regard, as we mostly see in the historical books and documents, scientists and scholars are subordinates to the kings or emperors’ will and intention. Therefore, if the political authorities try to create a suitable environment in which scholars can enrich their thoughts, the knowledge overflows and subsequently the human generations will attain the results.

The general approach of a nation towards knowledge and sciences depends on the strategy defined by the rulers and accepted by the people. This strategy is usually originated from the philosophy or religion accepted by them. Among religions or philosophies, which intrinsically have the idea of knowledge seeking in them encourage their followers to obtain knowledge, and subsequently have witnessed more scholars and knowledgeable people among them.

Islam encourages seeking of knowledge
Islam is one of the religions that fundamentally encourage its followers to obtain knowledge. The teachings of Qur’an and the Prophet sayings perfectly deal with this matter (1). It emphasizes not only the Islamic and Qur ‘anic teachings but encourages them to obtain others’ knowledge and culture (2). In the history of Islam, after the four Orthodoxies, some Caliphs, in order to deviate people from the true Islamic teachings and to do whatever they wanted, mostly overemphasized on the scientific, literary and cultural heritage of other nations and encouraged the scholars to translate them into Arabic. They tried to use them for their entertainment, fighting with enemies and other
purposes. The first examples of this attribute are the creation of the books such as ‘Uyn al Akhbar by Ibn Qutaibah and ‘Iqd al Farid by Ibn ‘Abd Rabbah (3). Although the movement for translation of non-Islamic books, especially Greek ones, has begun from the Omavids period, enforced in the early Abbasids, and reached to the highest point in the latest decades of 3rd/9th and the earlier decades of the 4th/10th century. The translation of philosophical thoughts of Aristotle mostly by Christian authors, which were not fully in consistency with the Islamic teachings, created some boring disputes and discussions among the Muslim scholars. In this period, the strategy of the government was to let everybody to be free in one’s belief.

General uprisings against Caliphs

After the Prophet of Islam and his four orthodox Caliphs, the two Umavid and Abbasid dynasties ruled the Islamic Empire. Due to the prejudice of Omavids dynasty over their subordinate nations by practicing Arab superiority over others, the protest of the oppositions showed itself in the form of some local or general uprisings. For example, Abu Moslem Khorasani, one of the designated Iranian commander and protestor, helped Abbasids in order to get people rid of Umavids. But after Abbasid’s settlement, the people witnessed that the new Caliphs do not care anything except their personal benefits. The uprisings, which had begun from the previous centuries, here and there in all over the vast Islamic empire, tried to build a new organization in the form of independent government. Among them there were some powerful dynasties, which even gained the authority over Abbasid Caliphs. During the 3rd and 4th centuries of Hijræs, there were some expanded general uprisings against the Abbasid Caliphs’ full authority and their ruling strategy over the Islamic Empire. These movements showed themselves in new organisations such as: Samanids, Taherids, Safarids in Iran, Buveyhids in Iran and Iraq, Hamdanids in Iraq and Syria, Fatemids in Egypt and Idrisids in North of Africa. What is interesting is that they were all Shi’its or had some inclination towards shi’it’s conduct (4).

Motivation for this study

As a university professor, the author used to teach the reference sources in University of Tehran. One of the main topics taught was encyclopedias, biographies and bibliographies as a course in the Librarianship. Although he had always been interested in doing some surveys in these topics, the motivation for this research enforced when he received an Arabic book from the 5th International Book Fair in Tehran, called: Hayat al ‘Ilmyah fi al ‘Ahd al Saljuq fi al ‘Araq (the Scientific Approach in Iraq in Seljuk Period). As usual, he found that it was with little attention to Shi’it scientific activities and scholarly works. In that time, the author wished if he could investigate in Shi’it periods and search for their scientific approaches. Reading some books or articles such as Islamic civilization in the 5th century of Islam by Adam Metz and the scholarly article by Naji Ma ‘ruf called: Madaris qabl az Nezamiyah dar Araq (Islamic Schools before Nezamiyah of Baghdad) gave extra motivations for this research. Due to these considerations, he made a proposal named “the scientific approaches in the Shi’it dynasties.” Then he began working on Buveyhids, not necessarily the first, but as the most important ones in the history of Islamic dynasties.
Buveyhid period

Buveyhid dynasty reigned over a great part of Iran and Iraq between 320 to nearly about 450 Hijri. The three brothers named Hasan, Ali and Ahmad were the founders of this dynasty and they divided all the territories captured among them. Among the next generation of the rulers, there was the most powerful king named ‘Adhad al-Dowlah (338-372 a.h.) who was compared with the most powerful Abbasid Caliphs- Aarun al- Rashid (170-193 a.h.). Their capital city was Shiraz as well as Baghdad. Due to the weakness of ‘Abbasids in that time the Caliphs had to obey them. In some cases the new rulers of Buveyhids nominated or abandoned the Abbasid Caliphs.

Although Buveyhid period is one of the most brilliant eras in the Islamic history, especially from scientific point of view, there is not much written in this field. Some insist to stretch this brilliant period to the 7th and 8th centuries of Hijri (5). But actually the Ava’il (pre-Islamic sciences like Mathematics Medicine, Astronomy and other natural sciences) were faded away by the fall of Buveyhids. The other dynasties such as Turkish Sunnit Ghaznavids, were very bias towards their religion and did not let others to be free in their thoughts (6). Even Khwaja Nezam al- Mulk, the very clever minister of Saljuqs was very tough to others. He was partisan for Hanafids and Shafe’ids, two sects of Islamic Sunnit religion (7). In fact, this era is unique in its generality and specialty.

Scientific renaissance in this period

It is told that the Buvehyid Age was one of the most productive periods in the Islamic era. In this period there were numerous scientists and scholars in every domain in comparison with the other periods, quantitavely and qualitatively. Many historians as well as sociologists and others confessed that this period was an exception. It is called as the renaissance period, or the period of Islamic humanism (8).

Some authors believed that Samanid (9) or Ghaznavid (10) periods could be called as brilliant era in Islamic history too. But it must be noted that in these two cases one witnesses the cheerfulness of the Persian culture and literature. Some compared (11) the renaissance in this period with the Italian Renascence in 15th century from some points of view. Some others compared it with the Western 12th century Renascence. In this comparison, they say that the works of Plato, Aristotle, Ocludes, Julius and Beatles were retrieved and translated. Even those who are in the opposite of Shi’it dynasties confess that this period is the outstanding one because of the abundance of scientists and knowledgeable people in all the subjects that were known in those days (12). Some of the learned kings of this dynasty as well as their knowledgeable Ministers (Vezirs) helped the situation. The best example of this scientific renaissance in the fourth / tenth century is Abu al Fadhl al ‘Amid. He taught ‘Adhad al Dowlah, the most powerful king of Buveyhids how to manage the government and rule the country. Ibn ‘Amid knew himself as the best follower of the Greek philosophers such as Plato, Socrates and Aristotle (13).

This period as Kraemer defines, is distinguished for three points: Individualism, Unitarianism, and secularism (14). In that time, as describes Kraemer, the individual potentiality and one’s efficiency was preferred to genealogy. For example, Abu Hayan Towhidi’s father was a simple date seller. Ibn-‘Amid and Sahib –bin ‘Abbad, the knowledgeable Ministers, got their jobs because they tried themselves and they had their individual enthusiasm. The original founders of Buveyhid dynasty were sons of an unknown man or a poor fisherman. Baghdad was a metropolitan and all scientists and
scholars from all over the vast Islamic Empire gathered there to meet one another. This vast Empire was extended from Spain to India (15). The believers of other religions such as Christians, Jews, and the Sabians were cooperating to improve knowledge actively in this Islamic dominated region. Secularism and skepticism were found in all scientific or philosophic circles. Poets practiced their poetic works in front of the ministers such as Sahib bin- ‘Ibad (16). The democracy practiced by the Buveyhids resulted the presence of many designated scholars in that time. Their approaches were in all subjects and disciplines. For example, in Arabic literature we can name Abu al Hasan Mafarrukhi (d. 348), Abu al Faraj Isfahani (d.356), Ibn Marzban Sirafi (d.368), Abu ‘Ali Hasan bin Ahmad (d. 380), and Ahmad bin Faris Razi (d.395). In Fiqh and Usul (jurisprudence) and Qur ‘anic interpretation, we can name Abu Bakr Ahmad bin Isma‘il Jurjani (d. 371), Ibn al Tabari (d.376), Abu Hamed Isfaraeni (d. 406). Mas ‘udi ( d. 347) and Istakhri(d. 346) , Muhammad bin Hasan Qumi and Abu Sa‘id (d.421) are famous in history and geography. In Kalam and Islamic Philosophy we have Qadhi Abd al Jabbar al Mu’tazeli (d. 415), Sistani, Ibn Muskuyeh, Ibn Sina and Syed Murtedha. In mysticism, the names of Ibn Khafif Shirazi(d. 371). Ibn Sheiban Qarmasini(d. 377) and Baba Tahir ‘Uryan are outstanding. In Medicine, Mathematics, and Astronomy there were some famous scholars such as Ibn Tayeb al Tabari(d. 366), Majusi Ahvazi (d.384), Buzjani(d. 388), and Abu al Khayr al Jara’hi (17).

The Buveyhids era began after the two great semi-philosophic movements called I-‘tezal and Asha ‘irah. Now in this time, the Buveyhids, first Zeydi in religion who then turned to Ithna- ‘Ashari (twelve Imams), let people choose their own religion and they showed no bias in this regard. Among the Vasiirs (ministers) of some of the kings, there were from other religions and sects such as Christian, Jews, Ash ‘ari, Zaheri and so on. This caused the presence of the scientists in all domains even in controversial subjects. Not only the kings but their ministers and other minor rulers encouraged the scientists and their scholarly activities. They managed some regular scientific circles. Many poets or learned people such as philosophers or mathematicians attended these circles. Some believe that this period is not comparable with any other Islamic ages, even with the era of great universities called Nezamiyeh in Baghdad or other places (18).

Literature survey
As told before, not too many books have been written on the history of Buveyhids. Most of the books are about the Islamic or Iranian history in general. Some books are biographical history of individuals such as: Saheb bin ‘Abbad, Ibn ‘Amid, Abu HayanTowhidi, Ibn Mus-kuyah, Avecinna, and others. The most famous works on this period, as far as the author knows, are Metz’s book called The Islamic Civilization in the 4th Century, the Humanism in the Renaissance of Islam: The Cultural Revival during the Buyid Age by Joel Kraemer, and two Persian books by Faqhi called: ‘Al-e Buyah va Awdha ‘ zaman –e Ishan (Buyeh dynasty and the social status in that time), and Shahanshah ‘Adhad al Dowlah ( ‘Adhad al Dowlah, the king of the kings). These books are very important but they discuss on the subject from some specific angles. For example, the first book deals with sociological aspects of this period. It describes the situation governed palaces as well as poor huts and it shows the social contradictions in cultural, economic and sociological aspects in that time. In discussing the way of life in the governmental bodies as well as in the society, the author reveals some social and
political changes in that time. Nevertheless, the author allocates some chapters to the scientific approaches among governmental bodies as well as ordinary people. The Indian translator of the book into English has added some good points but it still lacks discussing the significances in other parts of the Islamic vast Empire such as Transoxania (Mavara’ al - Nahr or Andoles (Spain)). It mostly focuses on the two metropolitan cities – Baghdad and Cairo (19). Kraemer’s book focuses on the mere cultural aspects in Buveyhid period. It also emphasizes on Iraq. As it was mentioned before, it tries to show up the individual approaches to scholarly works and discussions. Kraemer pointed out that he intended to show that in the Buveyhid period, the state authorities intentionally tried to attract all other philosophic and cultural sciences of their neighbors especially the Greek ones (20).

The aim of this article is to show the plenty of the scientists in this period and to clarify that these scholars have been in all disciplines known in that time. It means that, although the scholars may have been numerous in previous period, due to the kind of democratic practice of the Buveyhids government, this showed itself completely.

Methodology and discussion
The methodology is based on the content analysis. The author collected all the related biographies from the several main recourses as encyclopedias and main historical texts. The examples of the first are Da’rat al Ma ‘arif al Islamiyeh (The Great Encyclopedia of Islam), Tashayo ‘ Encyclopedia (The Shi’it Encyclopedia) Lughat Nameh –e Dehkhodat (Dehkhoda Lexicography), and the examples of the latter are Tarikh-Baghdad (Baghdad History) of Khatib Baghdadi, Subh al A ‘sha fi sana ‘at Insha (the Dawn of Blinds for Literary works) by Qalqashandi, the Humanism in the Renaissance of Islam: The Cultural Revival during the Buyid Age, by Kraemer, and Aal Buyeh and Awdha ’ Zaman Ishan (Buvehid dynasty and their social status) by Faqhi and others.

After making a questionnaire with several items as demographic information, religion, teachers and students, social responsibility, and main biography, followed by the scientific works, they were filled by using the above-mentioned resources. The survey was based on this principle that those who were born or died inside the territory reigned by one of Buveyhids, were with one of their kings or their ministers (Vezirs), were connected in any way with this dynasty, or moved to any cities like Baghdad, Rey, Isfahan, Shiraz and others, were added to the research. For example, Kuleini, who passed his latest period of his life in the reign of Buveyhids (d.328) was added while Farabi who lived with Hamdanids in his latest period of his life (d.329), and Ferdowsi, who it is told that he had met one of the Buveyhids rulers but not in a formal way, were excluded.

The scholars’ biographies were arranged according to a new scheme introduced by the author in his article called “New scheme for Classification of Knowledge”. This new scheme is based on two main elements: hierarchical and binary (21). This scheme is based on one of the Qur’anic verses (22).

The result of this research showed the presence of more than 350 famous scholars in this period if we count them only according to their first interests. The number and its percentage would vary if we count their specialties altogether. Because some of the scholars had more than one interest, and because the historians may not have mentioned their true interests orderly so, the author thought that it was better to count all their interests in whatever field they were, collectively. That is, their specialties are those cited
by the historians in the above-mentioned resources. According to the new summing up, this number reached to about 714. The figure 1 and Table 1 show this more clearly.

According to this survey, the highest number is for those who worked in Hadith (Tradition), Fiqh (jurisprudence), Adab (literary works) and Shi ‘r (poetry) respectively. Their numbers are 128, 109, 101 and 71 accordingly. The reason is that many issues in the society from legal, ethical, cultural social and political aspects are derived from Hadith (Tradition) and Fiqh (jurisdiction). These two showed the people how to conduct their individual or social lives. All other subjects were as follows: History, 17, Geography, 3, Calligraphy 9, Rejal (biography) and Geoalgy18, Mathematics, 30, politics, 17, Chemistry, 1, Medicine, 26, ‘Irfan and tasavuf (mysticism), 17, Qur’anic sciences and interpretation 14, Bibliography and catalogues 4, Qira’at (recitation) 16, Kalam, 40, philosophy and logic 23, Lughat (lexicography), 36, and astronomy 21. Also the libraries in that Age were very famous. The ones in Shiraz and Rey were outstanding (23). The interesting thing is that we find that all sects and religions have participated in this scientific movement. Table 2 shows this more clearly.
Conclusion

Buveyhid Age, 4th and 5th centuries after Hejrah, is one of the most, if not the only, fruitful periods in the Islamic history from the scientific point of view. The kings and their ministers respected fully the scholars. It is not peculiar that we see that most outstanding scholars in the history of Islam appeared in that time. Not only in religious studies we had some designated persons such as Kuleini, Sadooq and Mufid, but in philosophy and medicine we witnessed the great scholars such as Avecinna. As shown in the Figure and Tables, we saw that we had scientists in nearly all fields. In literature they made a movement, which was for the first time. Up to then, the Arabic literature had a sort of conservatism. Nobody did not dare to exceed from the old style. They had a slogan that the ancestors did not leave anything for the coming generation. Ibn Faris, the famous literary critic in the reign of ‘Adhad al dwolah broke the slogan and created some new works (24). Also, the general approaches had been to all subjects and disciplines. Besides, the scholars practiced their religion according to what they wanted. The Shi‘it rulers did not practice bias towards shi‘ism. Even Sheikh Mufid (Ibn al Mu‘alim) who is one of the greatest Shi‘it theologians, was banished twice from Baghdad (25).

However, this is the first study in its kind and may have some defects. In the early Islamic history, although many historians have worked, they have not usually been so smart in their recitations (26). They always followed their ancestors without much criticism and scrutinizing. As the author is going to work on other Shi‘it dynasties such as

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Table 2-The number of the scholars in the Buveyhid period according to their religion

| Subject/Religio Shiat Ziadl Sunni Shaf'i Hanbel Hanafi Malakd Mu'azzam Ash'ar Christie Sekel Unknown Total |
|-----------------------------------------------|------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------|
| Astronomy                                      | 7                                                    | 7                                                  | 6                                                     | 20                                                    |
| Bibliography                                   | 4                                                    | 2                                                  | 1                                                     | 1                                                     |
| Biology                                        | 12                                                   | 3                                                  | 2                                                     | 1                                                     |
| Calligraphy                                    | 3                                                    |                                                    | 4                                                     | 7                                                     |
| Chemistry                                      | 1                                                    |                                                    | 1                                                     | 1                                                     |
| Figh                                           | 50                                                   | 2                                                  | 11                                                    | 32                                                    |
| Geography                                      | 1                                                    | 2                                                  | 3                                                     | 1                                                     |
| Geology                                        | 1                                                    |                                                    | 1                                                     | 1                                                     |
| Hadith                                         | 72                                                   | 25                                                 | 12                                                    | 5                                                      | 7 | 2 | 1 | 1 | 4 | 129 |
| History                                        | 9                                                    | 5                                                  | 2                                                     | 1                                                     | 17 |
| Kalam                                          | 21                                                   | 1                                                  | 4                                                      | 3                                                      | 1 | 4 | 1 | 1 | 3 | 42 |
| Lexicography                                   | 16                                                   | 10                                                 | 4                                                      | 2                                                      | 1 | 1 | 3 | 36 |
| Literature                                     | 50                                                   | 29                                                 | 13                                                     | 1                                                      | 7 | 100 |
| Mathematics                                    | 6                                                    | 7                                                  | 2                                                      | 1                                                      | 1 | 1 | 2 | 20 |
| Medicine                                       | 4                                                    | 12                                                 | 3                                                      | 2                                                      | 4 | 25 |
| Medicism                                       | 5                                                    | 8                                                  | 1                                                      | 1                                                      | 4 | 17 |
| Music                                          | 1                                                    | 1                                                  | 2                                                      | 4                                                      | 8 |
| Philosophy                                     | 6                                                    | 9                                                  | 3                                                      | 3                                                      | 2 | 22 |
| Physics                                        | 1                                                    |                                                    | 2                                                      | 1                                                      | 4 |
| Poetry                                         | 42                                                   | 1                                                  | 17                                                     | 7                                                      | 1 | 3 | 71 |
| Politics                                       | 12                                                   | 1                                                  | 4                                                      | 2                                                      | 1 | 1 | 22 |
| Qur'anic Science                               | 6                                                    | 3                                                  | 1                                                      | 1                                                      | 1 | 1 | 1 | 15 |
| Recitation                                     | 6                                                    | 4                                                  | 2                                                      | 1                                                      | 3 | 10 |
| Translation                                    | 1                                                    | 2                                                  | 3                                                      | 3                                                      | 3 |
| Total                                          | 35                                                   | 5                                                  | 164                                                    | 82                                                     | 13 | 28 | 7 | 8 | 2 | 13 | 4 | 55 | 714 |

Fatemids in Egypt, Hamdanids in Syria, and Edrisids in west Islamic empire, therefore, all comments are appreciated.

References:
1- Qur’an. Yusef, 76; Muhammad Baqir Majlesi (1992), Behar al Anvar Al Jame ‘ah le Durar al Akhbar... Beyrut, Leban.
2- The Prophet says: “Seek knowledge even if it is in China”. As the China has been very far from the people, especially in that time, this emphasizes the importance of obtaining knowledge; also: Seek knowledge from cradle to grave. See: Biha al Anvar..., vol. 1.
3- These two books are arranged in so that the kings or Caliphs can get their highest benefit from them. The first book is divided into booklet such as Booklet for war, Booklet for women, Booklet for horses and so on. The latter is named as an unique necklace, which each part has a special name such as pearl, ruby, etc.
5- Fuat Sezgin, Guftar hay piramun Tarihk ulum – ‘Arabi va Islami( Discourses on The History of Arabic and Islamic Sciences). Translated into Persian by Muhammad Reza Ataie. Mashad. Astan Quds Razavi. p. 34.
8- Ibid, p. 35
10- Fuat Sezgin, p.
11- Joel Kraemer, p. 19
13- Joel Kraemer, p.19
14- Ibid, p. 109
18- A. Hematyan Is haqi. Ibid, P.53-54

22- Qur’an. Fusselat, 53: *We will show them Our Signs in the universe, and in their own selves, until it becomes manifest to them that this is the truth* According to this classification scheme all knowledge is divided into two, human knowledge and the knowledge about nature. The first divides into two, knowledge about human soul and spirit and knowledge about his body. The latter divides into the knowledge of heaven and earth and then each of them into two and then moves down in two. Thus, all biographies are arranged into two big divisions. The first is the Natural sciences such as Astronomy, Physics, Chemistry, Geography, Geology and Medicine. The latter part consists of human sciences such as: Literature, Poetry, Hadith (tradition), Fiqh (jurisdiction), Qur’anic sciences and commentaries, Kalam (theological sciences), ‘Irfan (mysticism), Rejal (biography), Syasat (politics), Philosophy and Logic, and Mathematics.


24- Ibid., p. 29.
