

# The Role of Geographic Education in Shaping the Muslim Image of the World

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*The role of geographic education in shaping the Muslim map image of the world is examined in this paper. University students from four Arab Muslim countries, Morocco, Sudan, Kuwait and Saudi Arabia were asked to sketch a map of the world on a blank sheet of paper as part of a worldwide study of sketch map images of the world. The strong focus of the Muslim students on the Islamic nations of Asia and Africa, and their more limited knowledge of other world areas, contrasted sharply with the more Eurocentric image of the total world sample. An initial disadvantage faced by the Arab students was the rarity of map use in their societies. Other aspects of their geographic education which affect the quality of their sketch maps of the world are pointed out and suggestions for improvement are offered to the Arabs and the rest of the world.*

**Key Words:** sketch maps, world, Muslim, geographic education, Arab, mental maps.

## INTRODUCTION

In this paper Muslim geographic education is examined in relation to the performance of Arabic speaking Islamic students on a world sketch map exercise. The image of the world revealed in sketch maps drawn by students from Rabat, Morocco; Khartoum, Sudan; Kuwait City, Kuwait; and Mecca, Saudi Arabia, contrast sharply with the more Eurocentric image of students from elsewhere in the world (Saarinen 1999). Because the Muslim maps were so different and because the maps as a group lagged behind most other world samples in numbers of items (countries and continents) per map, we thought an analysis of the geographic education in these countries might be revealing (Saarinen and McCabe 1995).

The main objectives of this study are:

1. to investigate the Muslim image of the world, including its strengths and weaknesses.
2. to explain, in terms of their current geographic education, why these samples from four Muslim countries tend to be parochial and poor to fair in quality.
3. to make suggestions for improving the geographic education in these nations.

The paper is organized in five sections: 1) introduction, 2) how Muslim maps differ, 3) results and discussion of each of the four samples, 4) explanation of the results, and 5) conclusions and recommendations.

The samples featured in this study were collected just prior to the end of the Cold War as part of the Parochial Views of the World Project, sponsored by the International Geographical Union and funded by the National Geographic Society. Students in first year geography classes in universities from around the world were each given a blank sheet of paper and asked to sketch a map of the world and label all the countries. Table 1 shows the project's scope. A more detailed description of the project and an extensive literature review recently appeared in this journal (Saarinen 1999). These will not be repeated here except for a few references which support or illuminate specific aspects of the Muslim image of the world.

### **HOW THE MUSLIM MAPS DIFFER**

The image of contemporary Muslims of the world can hardly be separated from that of the early Muslim scholars and their remarkable contribution to geographical knowledge in the Middle Ages (James and Martin 1981; Lewis 1982; Wright 1925). Al-Shami (1981) defined two schools in these early contributions, old and new. The old school based its knowledge of the world on previous information extending back to the Greeks. For example, Al-Idrisi, (1108-1179) is one of the scholars of this school. He improved the world map to the extent that it was taken as reference for centuries (Al-Shami 1981; Lewis 1982; Wright 1925). The modern school, on the other hand, acquired their knowledge first hand and produced *The Atlas of Islam* in the 10th century, a work that was done basically to help administer Muslim countries in the Muslim Empire at that time. This atlas included all of the regions of the Muslim world (Al-Shami 1981).

Both old and contemporary Muslim images of the world depend on the perception of the real world. The difference between the two is that medieval Muslim scholars relied on their personal experience of traveling in obtaining information about the world, as well as information given by other travelers (James and Martin 1981; Lewis 1982, 147; Wright 1925, 79), while contemporary Muslims draw their knowledge mostly from education, media, and to a lesser extent from their personal experience. For example, Al-Idrisi who compiled the first scientific map of the world in 1154 during his stay with King Roger of Sicily (James and Martin 1981; Lewis 1982; Wright 1925), questioned travelers who visited different regions of the world, and compiled information on "physical" and "human geography" of those areas (Al-Shami 1981; Lewis 1982; Wright 1925).

In the Parochial Views of the World Project, the Muslim student maps

Continent	No. of countries	No. of sites	N	%
Africa	11	13	656	18.4
Asia	16	24	950	26.6
Europe	13	13	706	19.8
North America	5	14	726	20.3
Oceania	3	5	305	8.5
South America	4	6	225	6.3
World Total	52	75	3568	100.0

**Table 1.** Number of sketch maps of the world collected by continent (November 1985-87).

of the world contrasted with the others in two main ways. First was their strong focus on the Islamic nations and second was their limited knowledge of other world regions.

For the Arab students in our sample, the Muslim countries of South West Asia and North Africa are among the best known in the world. All Islamic nations are generally included by a far higher proportion of the Muslim students than by the total world sample as shown in Table 2. Muslim students are also more likely to include countries with appreciable Muslim populations at rates above the world average. Since many of the countries more likely to be included by Muslim students are in African and Asian areas, which are not known well by the majority of the world sample, the Muslim sketch maps of the world contrast with those from other areas.

While the Muslim students in relation to the total world sample are superior in their knowledge of the Muslim world, they are inferior in their knowledge of the rest of the world. In part this reflects the lower level of geographic literacy of the Arab/Muslim students (Saarinen and McCabe 1995). Table 3 shows that the Muslim sample included fewer countries and continents per sketch map than the average from the total world sample. The sample from Rabat, Morocco, averaged only 11.4 items per map, significantly lower than the three other Arab Muslim sites, which in turn were considerably below the average number of items per map of the total world sample. Europe, well known to most of the world sample, was more crudely sketched and less fully labeled by the Muslim students.

All of the Arab/Muslim samples were sent in by cooperators. If they followed the detailed instructions the sketch maps should provide valid comparative data. There is always the possibility that a cooperator did not understand, or take seriously the task, and this could be conveyed to the sketchers with deleterious results. The principal investigator for the broader study knows personally, and had confidence in, the cooperators from Kuwait and Sudan. Those from

Country	Morocco	Sudan	Kuwait	Saudi Arabia	Total World Sample
Egypt	11.7	93.5	64.1	62.8	46.5
Saudi Arabia	13.0	67.7	51.3	82.4	36.3
Libya	9.1	51.6	41.0	49.0	31.6
Morocco	22.1	41.9	48.7	54.9	28.8
Iran	3.9	29.0	46.2	51.0	27.6
Turkey	1.3	3.2	30.8	35.3	25.9
Indonesia	1.3	16.1	5.1	41.1	25.4
Iraq	3.9	35.5	61.5	49.0	24.5
Ethiopia	0.0	25.8	10.3	25.5	22.1
Algeria	16.9	45.2	46.2	52.9	21.2
Pakistan	1.3	12.9	25.6	21.6	21.1
Afghanistan	2.6	3.2	10.3	19.6	16.3
Malaysia	0.0	0.0	5.1	21.6	16.0
Sudan	7.8	96.8	51.3	56.9	15.6
Tunisia	13.0	35.5	35.9	49.0	14.9
Nigeria	0.0	16.1	5.1	19.6	12.3
Lebanon	2.6	16.1	23.0	21.6	10.5
Syria	0.0	29.0	33.3	29.4	10.4
Chad	1.3	22.6	5.1	13.8	10.2
Bangladesh	0.0	0.0	5.1	11.8	9.2
Somalia	0.0	6.5	25.6	31.4	8.9
Yemen	1.3	16.1	48.7	29.4	7.3
Jordan	0.0	3.2	25.6	31.4	7.0
Senegal	1.3	0.0	2.6	7.8	5.5
Tanzania	0.0	0.0	2.6	3.9	5.4
Mauritania	3.9	0.0	25.6	25.5	5.4
Kuwait	0.0	3.2	74.4	35.5	5.4
Niger	0.0	0.0	2.6	11.8	4.9
Guinea	1.3	0.0	2.6	5.9	4.8
Mali	0.0	3.2	0.0	5.9	4.2
South Yemen	0.0	0.0	28.2	25.5	4.0
United Arab Emirates	0.0	0.0	35.9	21.6	3.6
Oman	0.0	6.5	33.3	27.5	2.9
Djibouti	0.0	0.0	5.1	3.9	2.0
Bahrain	0.0	0.0	28.2	21.6	1.2
Qatar	0.0	0.0	30.8	15.7	1.2

**Table 2.** Percent inclusion of Muslim nations on sketch maps by Muslim students and the world sample.

Site	N	Average number of items per map
Rabat, Morocco	77	11.4
Khartoum, Sudan	31	24.3
Kuwait, Kuwait	39	24.7
Mecca, Saudi Arabia	51	26.9
Total World Sample	3568	35.6

**Table 3.** Number of maps and items per map of Arab/Muslim sites and the total world sample.

Saudi Arabia and Morocco were unknown to him but recommended. Only the Moroccan sample seems out of line.

## RESULTS AND DISCUSSION OF DATA

Differences were observed between the four countries in their views of the world. All of them show parochialism, while some of them reflect an extremely narrow image of the world, and students' drawings are poor in quality. Analysis of the data collected from the four Muslim countries will be in the following order – Morocco, Sudan, Kuwait and Saudi Arabia.

### Morocco

The lack of geographical knowledge shown by the Moroccan students surprised the researchers. It was poorest among the 52 national samples with an average of only 11.4 items per map; moreover, only 22.1% included Morocco, fewer than any other Arab sample as well as below the world average (Table 2). Half the Arab countries appeared on less than 10% of the maps. On the other hand, 70% of the Arabic countries that were included were those in Africa (Table 2). It was found that 41% of Arabic countries failed to be represented, notably those in the eastern Arabic world including Somalia, South Yemen, Kuwait, Oman, Qatar, United Arab Emirates, Jordan and Syria.

Knowledge of Sub-Saharan Africa was extremely limited. Almost half of the sample (49.4%) drew Madagascar, a large island off the east coast of Africa that creates a memorable gestalt. Distinctive shapes, large size, and salient positions on continents increase the frequency of inclusion (Saarinen 1973). Thus, South Africa, with its prominent southern position was second in frequency (15.6%). The vast majority of the represented African countries are drawn with frequencies of only 1.3%. Most African countries were totally missed by mappers (Figure 1). Africa was also the least known con-

continent for the majority of the world sample (Berkowitz et. al. 1992)

In comparison with other continents, Europe was better represented despite the fact that the majority of its countries were included by less than 10% of the map sketches. Sixty percent of the European countries were drawn, led by the United Kingdom, which was represented in 39.0% of the Moroccan maps. This was less than the 79.8% inclusion rate by the total world sample as well as the rates of the other Arab samples (Table 4).

Frequencies seemed to be related to distance and historical association. For example, Spain (23.4%), France (22.1%) and Portugal (16.9%) are close to Morocco and have historical relationships with it; in addition, these countries are taught in the geography classes at the fourth year of the high secondary school. Italy, with its unique shape, appeared on 14.3% of the maps. The frequencies became smaller in Central and Northern Europe where the Fed. Rep. of Germany was drawn 3.9% and Netherlands 2.6%. Countries further north and east such as Denmark, Finland, Poland, Norway, Yugoslavia and Greece all received frequencies of only 1.3%. The same pattern of declining country inclusion rates from west to east in Europe is apparent in the total world sample (Saarinen and MacCabe 1990). Thirty percent of the European countries were included by fewer than 2% of the Moroccan students. Such low frequencies of inclusion of European nations on sketch maps of Moroccan students occurred despite the historical and economic relationship of Morocco with Europe. This may be attributed to the system of education in Morocco. Although geographical education in Moroccan syllabuses is rich in socio-economic information, little stress is placed on the creation, presentation or use of maps. In fact, the education system may have had little to do with even the poor knowledge of Europe shown on the maps because the knowledge may have been gained through watching European football (soccer). In nations where soccer is popular, knowledge of other soccer-playing nations is enhanced (Pinhiero 1996).

In Asia, the leading economic power, Japan, is most widely recognized (24.7%), while India as a sub-continent comes next (20.8%). China, large and densely populated, is third (11.7%), and Sri Lanka, a small island with a clear image, came fourth (7.8%). The rest of the Asian countries, excluding Saudi Arabia and Israel, have frequencies of less than 4.0%. In fact, 60% of the Asian countries were not represented at all, while only 15.0% of Asian countries attained frequencies of 1.3% (Table 4).

The United States, the leading country in the world, was represented 27.3% of the time, and Canada 19.5%, while the former Soviet Union was included by 33.8% of the sketchers. Frequencies for Central and South America were very small; however, countries with large size and famous soccer teams attained relatively higher frequencies. For example, Brazil was

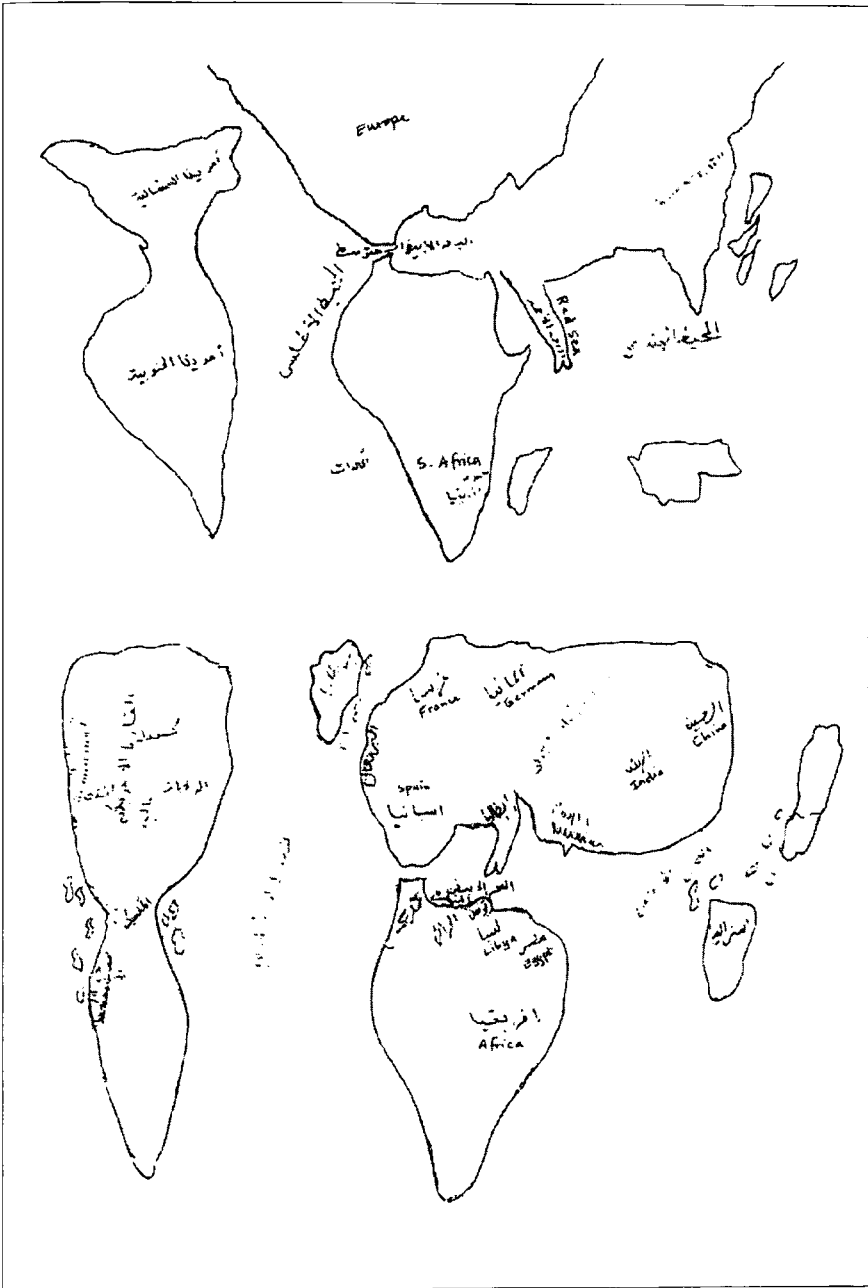


Figure 1. Maps of the world drawn by Moroccan students.

**EUROPE**

Nation	Morocco	Sudan	Kuwait	Saudi Arabia	Total World Sample
Soviet Union	33.8	58.1	46.1	52.9	83.3
United Kingdom	39.0	61.3	46.1	47.1	79.7
Italy	14.3	9.7	43.6	41.2	62.0
France	22.1	38.7	35.9	33.3	61.6
Spain	23.4	35.5	41.0	29.4	59.8
Portugal	16.9	12.9	18.0	5.9	42.9
Norway	1.3	25.8	12.8	9.8	38.7
Greece	1.3	0.0	7.7	13.7	32.0
Finland	1.3	9.7	7.7	5.9	29.5
Switzerland	3.9	0.0	5.1	5.9	27.8
Poland	1.3	0.0	2.6	3.9	25.9
Denmark	1.3	3.2	10.3	3.9	23.9
Netherlands	2.6	3.2	7.7	1.7	23.6
F.R. of Germany	3.9	0.0	5.1	2.0	22.5
Germany D. R.	2.6	0.0	5.1	2.0	21.2
Yugoslavia	1.3	0.0	5.1	3.9	19.1

**AFRICA**

Nation	Morocco	Sudan	Kuwait	Saudi Arabia	Total World Sample
Madagascar	49.4	58.1	10.3	31.4	50.5
South Africa	15.6	64.5	28.2	23.5	50.3
Mozambique	0.0	3.2	5.1	2.0	13.4
Kenya	0.0	0.0	2.6	9.8	12.0
Namibia	1.3	3.2	0.0	3.9	10.8
Zaire	0.0	3.2	0.0	5.9	9.3
Cameroon	0.0	3.2	0.0	7.8	7.8
Central African Republic	0.0	0.0	2.6	9.8	4.7

**Table 4.** Percent inclusion of representative world nations by Muslim students and the total world sample.



**NORTH AND SOUTH AMERICA**

Nation	Morocco	Sudan	Kuwait	Saudi Arabia	Total World Sample
Canada	19.5	74.2	56.1	54.9	80.0
USA	27.3	77.4	43.6	45.1	77.6
Mexico	9.1	38.7	33.3	33.3	60.2
Brazil	10.4	58.1	43.6	47.1	57.0
Chile	3.9	38.7	15.4	23.5	46.6
Argentina	3.9	45.2	28.2	31.4	46.4
Cuba	3.9	0.0	2.6	2.0	31.0
Peru	1.3	6.5	12.8	2.0	26.9
Venezuela	0.0	29.0	7.7	15.7	20.8
Colombia	0.0	3.2	0.0	2.0	17.8
Uruguay	0.0	0.0	5.1	5.9	17.4
Paraguay	0.0	0.0	2.6	2.0	14.3

**ASIA, OCEANIA, AND AUSTRALIA**

Nation	Morocco	Sudan	Kuwait	Saudi Arabia	Total World Sample
Australia	71.4	77.4	74.4	84.3	91.1
India	20.8	87.1	61.5	66.7	76.2
Japan	24.7	54.8	28.2	49.0	74.4
China	11.7	71.0	25.6	39.2	71.4
New Zealand	2.6	19.4	15.4	15.7	47.0
Sri Lanka	7.8	9.7	10.3	13.7	27.7
Philippines	2.6	3.2	5.1	17.7	27.2
Israel	9.1	9.7	30.8	29.4	21.1
South Korea	0.0	0.0	2.6	5.9	8.6
North Korea	0.0	0.0	2.6	2.0	8.5
Cyprus	1.3	0.0	18.0	5.9	4.9

**Table 4.** Continued.

drawn by 10.4% of mappers and Mexico by 9.1%. Argentina and Chile were included by 3.9% each, the rest by less than 2.0%.

Australia was included by 71.4% of Moroccan students compared to 91.1% of the total world sample. Madagascar was second with 49.4% of Moroccan students and 50.5% of the total world sample. The results for Australia, Madagascar and Sri Lanka indicate that large islands are well known and represented by Moroccan students as well as by the total world sample.

The parochialism of Moroccan students may be a product of their national culture and their system of education. In respect to the cultural dimension, the Arabic/Muslim world is largely known as a verbal culture. Communication between people in that part of the world depends mainly on the spoken word. The majority of information is disseminated through Arabic society by verbal and personal contact, and information such as the knowledge of countries of the world is not presented or materialized in maps. There is some sort of discrepancy that exists between knowledge and transformation of that knowledge into maps and in written form. In respect to geographic education, knowledge of the Arabic world as well as the world in general is gained through a well integrated syllabus which extends from elementary to secondary education. However, at the secondary school level the geography syllabus for Africa and other parts of the world emphasizes the idea of regionalism and can reduce knowledge of country names. For example, Africa is divided into regions instead of individual countries (Figure 2) (Amin et al. 1983, 6). Furthermore, when individual African countries are taught in the fourth year of high secondary school the names of adjacent countries are not shown. Thus, the names of Mauritania, Algeria, and Tunisia do not appear beside the map of Morocco when it is taught. This is also true of countries such as India and China. In addition, on maps that show several countries, political boundaries are either omitted or not clear, because they are drawn in faint white color. On these maps much emphasis is placed on showing the physical features of the area under study (Figure 3).

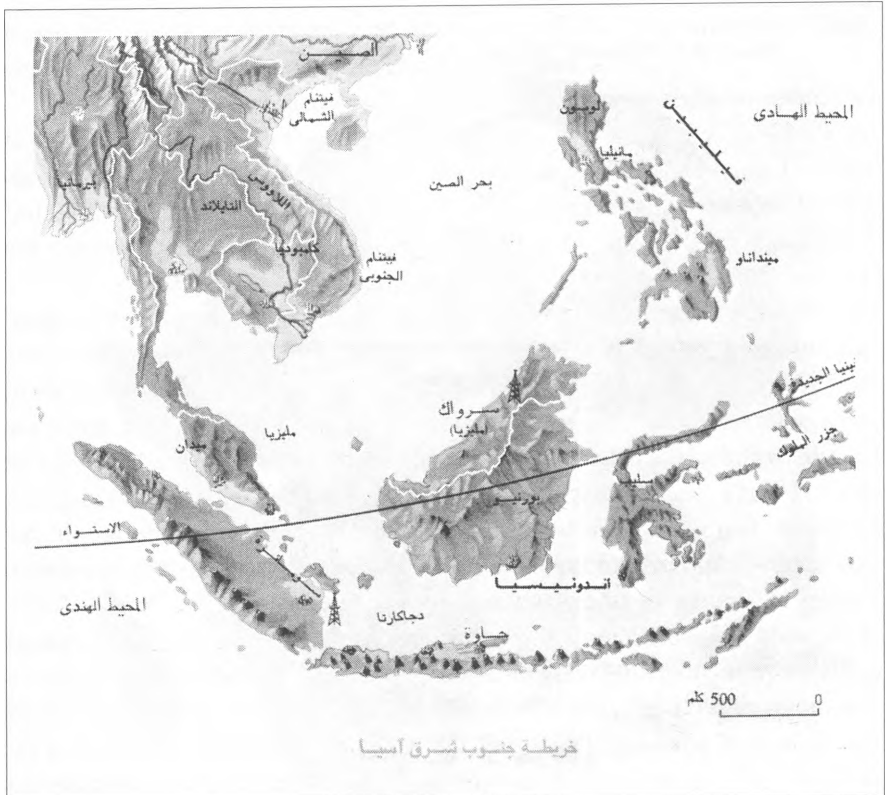
Even though the syllabus is weak on political boundaries, it presents physical and human geography very well. Students comprehend the region and its characteristics, if not the specifics of individual nations. They, therefore, know a good deal about the world and its regions. Such information, however, would be of little use in drawing maps of the different countries of the world. The cultural background of Morocco and its educational system are believed to be behind the poor representation of the world by its students. However, the researchers were not personally present when maps were drawn. They were received by mail from the local cooperator, a geography professor who had been sent detailed instructions for obtaining a sample.



**Figure 2.** African Regions (from Amin, et al. 1983, 6).

## Sudan

The map sketchers from the Sudan had a good knowledge of the Arabic/Muslim world. They included 72.9% of the countries of that world, with the Sudan and its neighboring countries having particularly high frequencies of recognition (Sudan 96.8%, Egypt 93.5%, Saudi Arabia 67.7%, and Libya 51.6%) (Table 2). The frequencies decrease with distance (Algeria 45.2%, Morocco 41.9% and Tunisia 35.5%). These countries represent the most populous part of the Arabic world. Also, this is the area where the notion of Arabic unity has been a frequent political issue since the 1970s, mainly between Sudan, Egypt and Libya. In addition, these countries have continuous contact in the field of sports and in cultural activities, and Sudan and Egypt have supplied labor to Libya.



**Figure 3.** Map of Southeast Asia (From Amin et al. 1983, 89).

On the other hand, similar to Moroccan students, the small states on the eastern edge of the Arab world have a zero frequency. Bahrain, Qatar, South Yemen, United Arab Emirates and Djibouti do not appear (Table 2). Mauritania has also been missed by the mappers. This may be related to the fact that Djibouti and Mauritania have only recently joined the Arabic League. Other Arab countries that are politically prominent have high frequencies such as Iraq (35.5%), Syria (29.0%), and Lebanon (16.1%).

Knowledge of Africa seemed to be extremely parochial despite the fact that Sudan has the dual characteristics of an Afro-Arab country. Sketch mappers managed to draw only 30.2% of the non-Arab African countries. About one-third of these countries have relatively high frequencies. This is because they border the Sudan and are areas of hot spots (e.g. where civil wars continued for long periods), as in Ethiopia (25.8%) and Chad (22.6%). South Africa was also well represented (64.5%), as was the island of Madagascar (58.1%). Nonetheless, some hot spots in Africa had poor representation: Angola (3.2%), Mozambique (3.2%) and Namibia (3.2%). Nigeria,

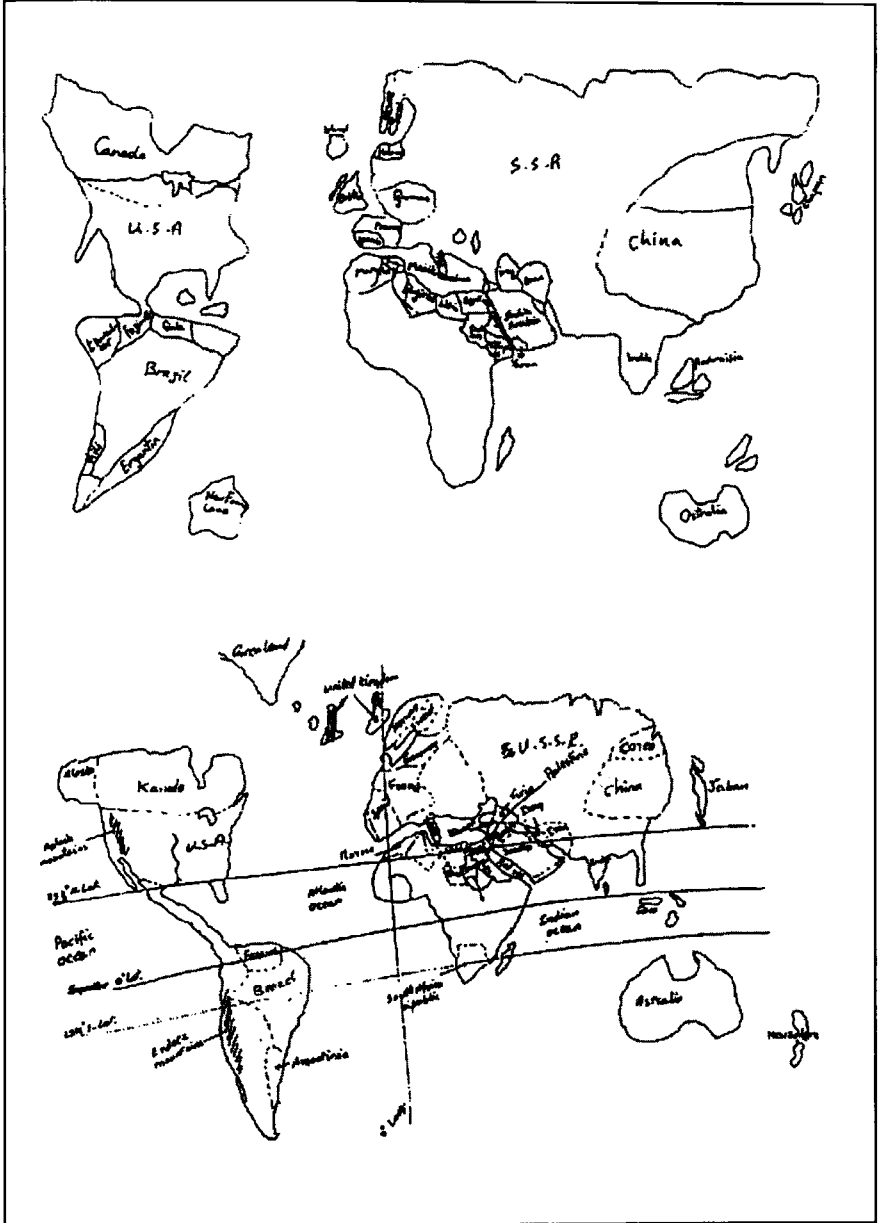
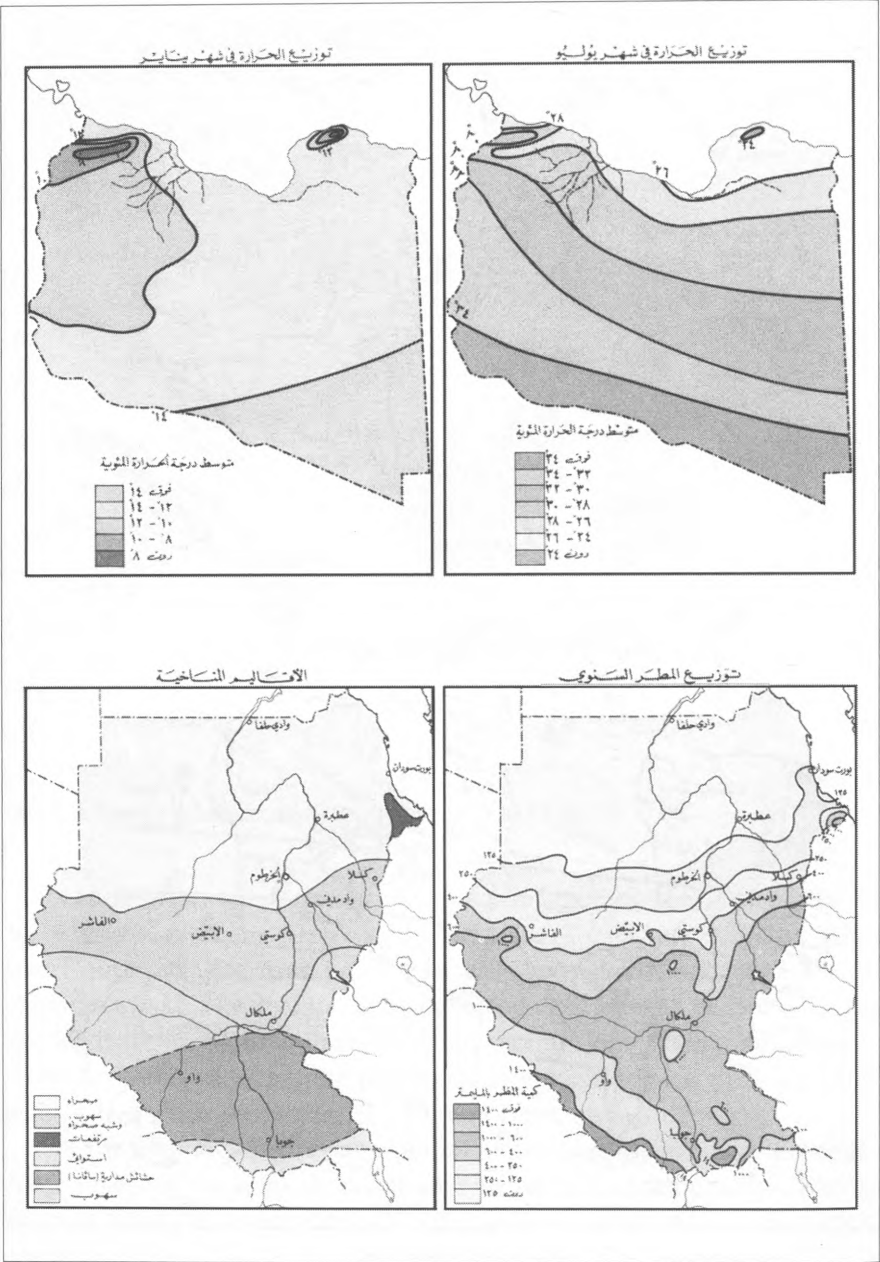


Figure 4. Maps of the world drawn by Sudanese students.



one of the largest African countries and with historical and contemporary relationships with the Sudan, appeared on 16.1% of the maps. In fact, Nigerians, who are called Fallata by the Sudanese, represent a large community in all agrarian areas of the Sudan (Stock 1995, 135).

A surprising phenomenon is that two African countries bordering on the Sudan, Kenya and the Central African Republic, were totally missed by the sketch mappers (Figure 4). This could be explained by the fact that the World Atlas used in the secondary schools shows the Sudan in isolation from other countries. On the 12 maps of the Sudan found in that atlas, no names of any adjoining countries are shown (Figure 5). In the geography book used in the second year of secondary school, five African countries are taught at length. These are Ghana, Morocco, Nigeria, South Africa and Tanzania. With the exception of Ghana, no national maps of these countries show names of adjacent countries. Ironically, despite the fact that Ghana and Tanzania are taught as individual countries, they were not included by the sketchers. Parochial views of Africa by the Sudanese students could further be explained by the fact that no colors were used in the geography book to help differentiate between countries. In addition, students received little practice in drawing maps of the African countries.

Only 36.4% of the countries of Europe were represented by the Sudanese students, with Western Europe better represented than the East (Table 3). The majority of the countries had a low frequency of appearance. With the exception of the United Kingdom, all European countries occurred less than 40% of the time. The United Kingdom, which appeared 61.3% of the time, has long had historic, cultural and economic relationships with the Sudan. In addition, the bigger countries of Western Europe and those with prominent coastal exposure have relatively higher frequencies. For example, France appears with 38.7% frequency, Spain 35.5%, Norway 25.8%, and Portugal 12.9%. Smaller and more interior countries appear with less frequency: Finland 9.7%, Poland 1.3%, and Denmark 3.2% (Table 4). The Sudanese Syllabus of Geography teaches only Netherlands and Yugoslavia, but Netherlands was included by only 3.2% of the sketchers, and Yugoslavia was omitted by all. Sudanese students were able to draw most West European countries in spite of a lack of emphasis in the Sudanese syllabus in geography due to Sudan's economic and cultural relationship with these countries. In addition, soccer matches, watched by the Sudanese each Friday, could have increased students' knowledge of these countries.

All the smaller countries in Western and Central Europe, such as Luxembourg, Austria and Switzerland, failed to appear on the Sudanese maps. East European countries were also missed despite a cultural relationship with these countries; since the early 1960s hundreds if not thousands of the

Sudanese students have graduated from higher institutes and universities in East Europe. The former Soviet Union, as one of the greatest powers at the time the samples were obtained, was well represented by 58.1% of the students.

In North America only three of the 22 countries were drawn by mappers. The United States of America was drawn by 77.4%, Canada 74.2%, and Mexico appeared in 38.7% of the maps (Table 5). As with other continents, the smaller countries were not often represented. It should be noted that the United States of America and Canada are part of the geographical education during second year of intermediate school.

In comparison with other continents, South America was well represented by the Sudanese participants. It was found that 83.3% of all countries appeared, despite the fact that only Argentina is taught in pre-university geographic education. Argentina was presented on 45.2% of the maps, Chile, with its distinctive elongated shape, on 38.7%, and Venezuela on 29%. But Brazil, the largest country on the continent, famous for its coffee, and a preeminent soccer power appeared 58% of the time (Table 4). The rest of South American countries were represented with frequencies of less than 7%, with Bolivia, Colombia, Ecuador and Surinam included by 3.2%.

More than three-quarters of the students (77.4%) identified Australia; New Zealand was present about 20% of the time. In conclusion, the parochial worldview of Sudanese students seems to be affected by political and cultural factors as well as by the educational system.

## **Kuwait**

Kuwaiti students have good knowledge of the Arabic world: all Arabic/Muslim countries were remembered, and frequencies varied from 74.4% for Kuwait to 5.1% for Djibouti (Table 2). Large countries, those with religious centers, long traditions of historic civilization, and a current political significance appeared most often. These include Egypt (64%), Iraq (61.5%), Saudi Arabia (51.3%), Sudan (51.3%), Morocco (48.7%), Yemen (48.7%), Algeria (46.2%), Libya (41.0%) and Tunisia (35.9%). The large Muslim states of North Africa are strongly represented. On the other hand, the tiny countries adjacent to Kuwait and which have been studied with some emphasis in Kuwait schools (for example, the Arabic Gulf Cooperation Council) are less well represented but at rates well beyond the world averages: United Arab Emirates (35.9%), Oman (33.3%), Qatar (30.8%), and Bahrain (28.2%). Countries that have recently joined the Arabic League or are located on the fringes of the Arab world, or are small in size were included less frequently: Mauritania (25.6%), Somalia (25.6%), Lebanon (23.0%) and Djibouti (5.1%).



Countries	Morocco	Sudan	Kuwait	Saudi Arabia	Total World Sample
Canada	19.5	74.2	56.1	54.9	80.0
United States of America	27.3	77.4	43.6	45.1	77.6
Mexico	9.1	38.7	33.3	33.3	60.1
Cuba	3.9	0.0	2.6	2.0	16.1
Panama	0.0	0.0	0.0	3.9	16.1
Nicaragua	1.3	0.0	0.0	0.0	13.2
El Salvador	0.0	0.0	2.6	3.9	8.5
Honduras	0.0	0.0	2.6	0.0	8.4
Haiti	0.0	0.0	0.0	0.0	5.8
Guatemala	0.0	0.0	0.0	0.0	5.7
Costa Rica	0.0	0.0	0.0	0.0	4.9
Jamaica	0.0	0.0	0.0	0.0	4.3
Bahamas	0.0	0.0	0.0	2.0	4.1
Dominican Republic	0.0	0.0	0.0	0.0	3.6
Trinidad and Tobago	0.0	0.0	0.0	0.0	2.2
Belize	0.0	0.0	0.0	0.0	2.0
Grenada	0.0	0.0	0.0	0.0	0.7
Barbados	0.0	0.0	0.0	0.0	0.6
Antigua and Barbuda	0.0	0.0	2.6	0.0	0.1
Dominica	0.0	0.0	0.0	0.0	0.1
St. Lucia	0.0	0.0	0.0	0.0	0.1
St. Vincent and Green	0.0	0.0	0.0	0.0	0.0

Table 5. Percent inclusion of North America nations by Muslim students and the total world sample.

Kuwaiti students have a good knowledge of the Arabic/Islamic world. This may be due in part to Kuwait's use of a system similar to the Saudi principle of knowing the outside world through learning about the Islamic and Arab worlds. In addition, geographic studies in Kuwait are included at three levels in the general education curriculum (Kuwaiti Ministry of Education 1984, 18-19). Moreover, Kuwait, as an oil rich country, has attracted people from different parts of the world, and there is daily personal contact between students and foreigners.

With few exceptions, a great difference was found between Kuwaiti student knowledge of North African countries and African countries south of the Sahara. Kuwaiti knowledge was confined to some extent to the coun-

tries of the eastern coast of Africa such as Ethiopia (10.3%) and Madagascar (10.3%). Although other eastern coast states have a historical relationship with the Gulf, they were not as widely recognized: Mozambique (5.1%), Kenya (2.6%), Tanzania (2.6%) and Zimbabwe (2.6%). Chad, frequently in the news, appeared on 5.1% of the maps. Nigeria and Senegal, which are both considered Muslim countries, were represented on 5.1% and 2.6% of the maps, respectively. Some 46.2% of the mappers included no other African territory. It should be noted that although Kuwait has adopted an Islamic worldview, the knowledge of Islamic states South of the Sahara is very poor. Those countries are not taught to students in their geographical study of Africa. In contrast, the vast majority of European countries were represented on the sketch maps of Kuwait students, although most are shown on half of the maps or less. It seems that Kuwaiti students have a better knowledge of Europe than they do of some of the Arabic countries.

In Europe, the best known areas are the United Kingdom (46.1%) and Mediterranean countries such as Italy (43.6%), Spain (41%) and France (35.9%). Other European countries were represented with lower frequencies: Portugal (18.0%), Norway (12.8%), Denmark (10.3%), Sweden (10.3%), Finland (7.7%), West Germany (5.1%) and Belgium (5.1%). All of these countries are economic allies and maintain their cultural relationships with Kuwait. It should be mentioned that all other Muslim countries have good economic and cultural relationships with these countries as well. Why has this knowledge not been better reflected in the maps discussed so far? Shiban (1993) explained this and estimated around 70% of the Kuwait students travel with their families to these countries during their summer vacations, unlike Moroccans and Sudanese.

As with other Muslim students, Central and Eastern European countries were less widely known than those in Western Europe. The highest percentage was East Germany (5%) and nearly half of these nations were not represented at all. As one of the superpowers, the former Soviet Union was represented with a frequency similar to those of the top European countries (46.1%).

Australia, a distinctive island and a continent with good economic relations with Kuwait, scored higher than any other nation (74.4%) except Kuwait itself (74.4%). New Zealand also appeared, but much less frequently (15.4%). In comparison with other Muslim students, Kuwaiti students have a good deal of knowledge of the Islamic countries of Southeast Asia. The same is true for Saudi students. Both countries have approached the study of the outside world through knowledge of the Islamic world. This knowledge is enriched not only by education but also through daily contact with individuals from these countries working in Kuwait and Saudi Arabia.

For Kuwaiti students, size, proximity and economic importance seem

to be key factors in representation. For example, as with Saudi students, neighboring Iran is well known (46.2%), as well as Turkey (30.8%), Pakistan (25.6%) and Afghanistan (10.3%). Distant countries are represented with small frequencies. Thus, Bangladesh, Indonesia and Malaysia were each included by 5.1% of the Kuwaiti students (Table 2). Other South and East Asian countries included by Kuwaiti students were those of large area and population [India (61.5%) and China (25.6%)], the economically advanced country of Japan (28.2%), the island of Sri Lanka (10.3%), as well as the Philippines (5.1%) and North and South Korea (2.8%) (Table 4). Burma (Myanmar), Laos, Mongolia and Nepal were missed by mappers.

As with students of other Muslim countries, Kuwaiti mappers were familiar with Canada and the United States. The former appears 56.1% of the time and the latter 43.6%. The importance of both countries as economic and technological powers is self evident. Mexico is represented by one third of the mappers. A large difference is observed between this group and the rest of the North American countries. Antigua, Cuba, El Salvador and Honduras are all present 2.6% of the time (Table 5). The vast majority of the small Central American and West Indies countries (68.2%) do not appear.

Kuwaiti knowledge of South America is, however, better than their knowledge of North America. Best known are Brazil (43.6%), Argentina (28.2%) and Chile (15.4%). Peru was drawn by 12.8% of the students and Venezuela, a top oil producer, appeared on 7.7% of the maps. No other country appeared as much as 5% of the time (Table 4).

In conclusion, Kuwaiti students have a more complete image of the world than those of Morocco and the Sudan. In general, Kuwaiti students have good knowledge of Asian countries. Arabic and Islamic countries are well represented. Countries with large areas, high population density or economic importance and island countries come next. Small countries were either misrepresented or rarely drawn. This is because the Kuwaitis gained their knowledge about the world from education and personal experience, both travelling around the world and in daily contact with people from different nations who work in Kuwait.

### **Saudi Arabia**

The mappers from Saudi Arabia have very good knowledge of the Arabic and Islamic world (Table 2). Large countries within the Islamic region appear with high percentages: Sudan (56.9%), Algeria (52.9%), Egypt (62.8%), Iran (51.0%), Libya (49.0%) and Morocco (54.9%). On the other hand, countries with small areas are only represented a small percentage of the time, such as Djibouti (3.9%), Qatar (15.7%) Bahrain (21.6%) and Leba-

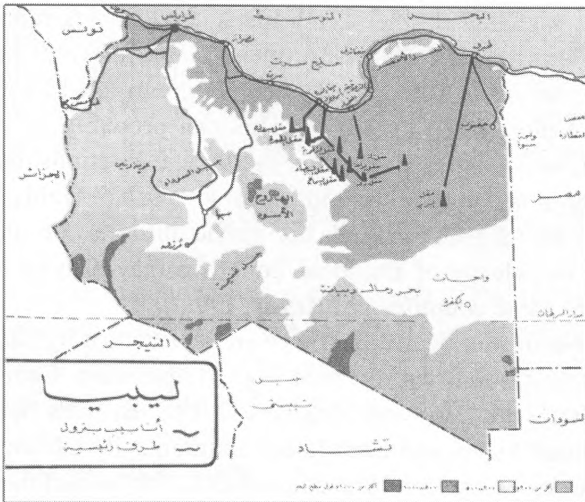
non (21.6%), but generally at rates higher than the total world samples (Table 2). Good knowledge of the Arabic/Muslim world derives from shared cultural linkages and education. The Saudi principle of geographic education stresses knowing the outside world through learning about the Islamic world, of which the Arabic world is an integral and important part. In addition, Saudi students complete exercises in drawing maps of this part of the world and others (Hommaida et al. 1991, 68 and 103).

Saudi students also have good knowledge of Africa, where 57.8% of the countries were represented. It should be noted that 70.6% of these countries are either Islamic or have large Islamic populations. Most of the represented countries (46.2%) were north of the Equator, in predominantly Arab/Muslim areas. Non-Arabic countries had lower frequencies of appearance, ranging from the distinctive island of Madagascar (31.4%) to landlocked Uganda (3.9%). Many countries south of the Equator or smaller in size did not appear at all (Table 4). It should be noted that the Saudi students were able to draw Kenya and the Central African Republic, while the Sudanese failed to do so despite that fact that they are neighbors of the Sudan. This could be related to differences in the educational system of both countries.

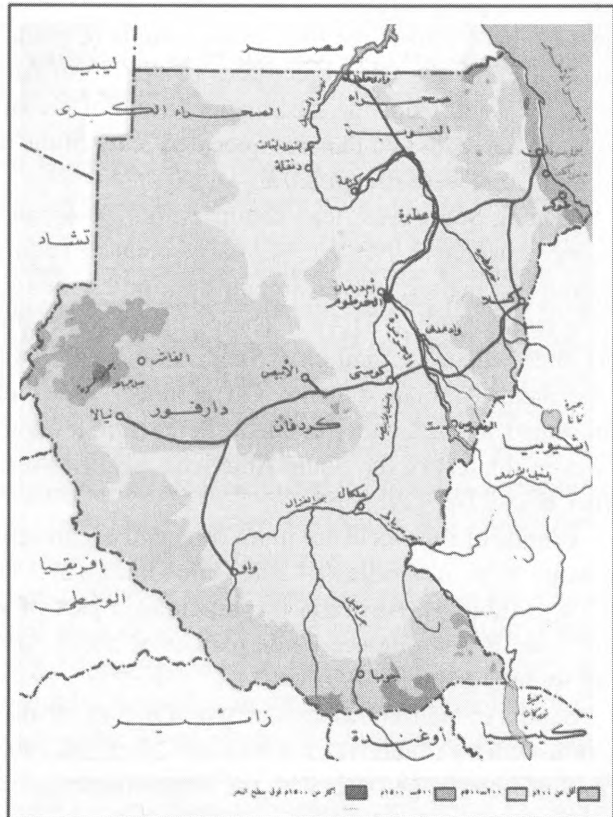
Some explanation of the pattern of Saudi knowledge of African, Arab, and Islamic countries are:

1. The study of Arab and Islamic countries in secondary school.
2. Unlike the World Atlas of the Sudan, these countries are presented in the syllabus as part of the region. Since the names of all adjacent countries appear on maps, this conveys to students the fact that no country exists in isolation (Figure 6).
3. One of the main methods of learning about other countries is the continuous exercise of drawing maps of them (Metz 1990). This aids the memory, perception and skills of students.
4. Using colors for the different countries makes distinctions more prominent and easier for the student to remember. A colored map of the African countries is an example (Al-Bakry et al. 1991, 160).
5. In addition, the sample was taken in Mecca, which is visited annually by millions of pilgrims, and where students thus have direct contact with Muslims from all over the world.

The Saudis know the majority of non-Arabic Asian countries. Most of the really large, heavily populated, economically powerful or Islamic countries are well represented. Fifty percent of the well-represented countries are taught in school. They are represented with frequencies ranging from 66.7% (India) to 11.8% (Bangladesh). A total of 37.7% of the Asian countries were either represented with frequencies less than 6% (e.g. Burma, South Korea and Cyprus) or not represented at all (e.g. Bhutan, Nepal and Vietnam).



a) Libya (p. 146)



b) Sudan (p. 137)

Figure 6. Maps as appearing in the Saudi syllabus (Hommaida et al. 1991).

Saudi students know the European countries comparatively well, with 60% of these countries included on the sketch maps; frequencies ranged from 47.0% to 1.9%. However, 52.4% of European countries were presented with frequencies less than 10%. The United Kingdom (47.1%) and Italy (41.2%) appeared most often (Table 4). This can probably be explained by the fact that, besides their distinctive shapes and locations, both countries have commercial and cultural relationships with Saudi Arabia. In addition, both countries are taught to students during the third year of intermediate school. Saudi knowledge of European countries may also be enhanced through travel to these countries (Al Ragihi 1992).

Only seven of 22 North American countries were represented by Saudi mappers. The three largest countries received high frequencies: Canada (54.9%), the United States (45.1%) and Mexico (33.3%). Besides being large countries, the United States and Canada are economically advanced and Saudi Arabia has strong commercial and cultural ties with both of them. Canada was more familiar to the Saudi mappers than the United States, a tendency that parallels the total world sample (Canada 80% and the United States 78%). While the larger states of the North American continent are known by Saudi students, the smaller countries are often omitted. For example, El Salvador and Panama appeared 3.9% of the time, while the Bahamas and Cuba were drawn 2.0%.

Among South American countries, 66.7% appeared, with frequencies ranging between 47.9% to 1.9%. Large countries and world soccer leaders received the highest scores among the South American countries (Brazil 47.1% and Argentina 31.4%). These countries are also taught in the third level intermediate curriculum of Saudi Arabia. Chile was included by 23.5% of the Saudi Arabian students. Oil producer Venezuela (15.7%) was also represented, and is taught to students in the third level at intermediate school. However, the rest of the South American countries received no frequencies higher than 2.0% (Table 5).

Islands of the world are more frequently represented than countries of the same size: Australia (84.3%), Greenland (27.5%) and New Zealand (15.7%) (Table 4). Australia in particular is part of school teaching programs, and is a strong economic partner of Saudi Arabia in the sheep and dairy trade (Al Ragihi 1992).

Saudi Arabian knowledge of world nations is the best of the sampled Muslim students (Table 3) (Saarinen and MacCabe 1995). In all Muslim cultures, this knowledge starts with the local environment – “the village” – and then spreads outward. Among Saudis, this is then enhanced by several factors. First, geography is taught as a separate discipline as part of a well-integrated process. Second, political, economic, and socio-religious ties are emphasized

and are of interest to the students in Saudi Arabia. Radio and TV programs about Muslims in the different parts of the world are continuously broadcast. Finally, there is travel and direct personal contact with both Islamic and non-Islamic cultures. It should be remembered, however, that the Saudi mappers were from Mecca, a holy as well as an “international city” in the Muslim world. It’s not clear how students from other cities would do.

## **EXPLANATION OF RESULTS**

After reviewing this study it is clear that the image of the world held by Muslim students is very parochial. Two issues provide insight into the cause of this situation – the nature of geographic education and the limited use of maps in Muslim countries.

### **Geographic Education**

The formal geographical education systems employed in Muslim countries use methods that have led to parochial images of the world. Since the early 1970s, systems of education in the Muslim world have adopted two different but closely related ideologies. These are the Arabic nationalism as found in Egypt, and the Islamization of knowledge promoted in Saudi Arabia and Kuwait. These ideologies have a profound effect on the teaching of all subjects of the social sciences, especially geography. Adaptation of the two ideologies resulted in heavier emphasis on teaching the geography of the Arabic/Muslim world than other parts of the world. This is clear from the syllabuses of elementary and intermediate schools of most of the Muslim countries. Two thirds of the time spent on teaching geography in general education is given to Arab and Islamic countries. World geography is not taught until the secondary level. Two Islamic countries used in this study, Kuwait and Saudi Arabia, have adopted the idea of teaching the world through the teaching of Islamic countries. The other two (Sudan and Morocco) have chosen to teach about very few western countries.

One of the tools of geography is the atlas, and atlas use has also contributed to the parochial view of the world held by many Muslim students. Both Arabic and World Atlases are used in geographical education in the Muslim world. For example, in the Sudan the Arabic Atlas is taught to the intermediate schools, while the World Atlas is used in both intermediate and secondary schools. The way the maps were presented and the geographical education syllabuses have affected Muslim students’ images of the world.

Another factor encouraging parochialism is the use of regionalism as an educational construct, as is done in Morocco. Africa, Europe, Southeast

Asia and South America are studied as regions, in which emphasis is placed on a few selected countries. Even among those chosen countries, physical relief is stressed over political information, and shading and coloration stand in stark contrast to the remaining area of the region, which is presented in featureless white. The names of nations are not even given. The accompanying text, on the other hand, is rich in physical and socioeconomic data of the region, with colored pictures to enhance it. Accordingly, we can assume that the discrepancy between the detailed information about the different regions and the absence of political boundaries on regional maps would affect the image, perception and drawing of sketch maps of these countries. Drawing maps of the countries as separate entities would not be likely to help the students comprehend the relationship between the different countries of the world. The Arabic Atlas of the Sudan displays many countries as separate plates, including the Sudan itself. The names of adjacent countries are not shown around the featured countries (Figure 5). Finally, except for the Saudi Arabian system, Muslim syllabuses do not give students experience in drawing maps. This, too, affects the students' abilities to draw maps of the different countries of the world.

### **Poor Map Quality**

This study revealed that sketch maps drawn by Muslim students are fair to poor in quality. There are several reasons for this:

1. Culturally, Arabic/Muslim society is a verbal society. This means that in most cases people convey information to each other verbally. Maps and related geographical concepts such as specific directions and distances are rarely used in daily life. Instead, people use general terms, such as "go straight, then turn right. After that go for some distance and you will see a white building. From there turn right, etc." Muslims are influenced by their cultural background against the use of maps or precise geographical terms in day to day interaction.
2. Officially, map use is rare, and maps are not readily available. Also, the maps used are old and outdated. For example, the 1:250,000 (quarter million) maps of the Sudan were drawn in late 1920s. Since then, little improvement has been made in them. There is a common belief in Muslim society that maps are used for studies only, which is reinforced in some cases by government attitudes on secrecy about the information maps provide.
3. Since the use of maps is rare, and educational systems often do not include map drawing, students have little or no prior experience in the skills tested here.



## CONCLUSIONS AND RECOMMENDATIONS

This study investigates the image of the world held by Muslim students in four Arabic/Islamic countries: Morocco, Sudan, Kuwait and Saudi Arabia. It reveals that, among the students tested, views of the world are extremely parochial. This result has been discussed in terms of interrelated educational, socioeconomic, cultural, political and religious factors.

Educationally, while information about the world is satisfactory in most programs in the Muslim world, the graphical presentation of this information is poor, and this generates a far-reaching effect on the students' extreme parochialism. To some extent this is mitigated by socioeconomic factors. Oil rich countries like Kuwait and Saudi Arabia receive migrant laborers from all over the world. They also have economic and commercial ties with, and their citizens travel to, many countries outside the Muslim world.

In Saudi Arabia's case this is reinforced by the presence of Mecca, center of the annual Muslim pilgrimage, the Hajj. The Hajj brings Muslims from the entire world in contact with the Saudi population, which plays an important role in caring for and assisting them. However, it is not known whether this effect is limited to Mecca, and the religious center of Al-Medina, rather than the Saudi population at large. Economic and travel ties have had an internationalizing effect on the worldview of Kuwaiti and Saudi students.

Use of regionalism as an epistemological approach to the world has greatly affected the image held by Muslim students. In spite of different interpretations of regionalism from one country to another, this approach has produced both positive and negative results. The regional approach appeared in Saudi and Kuwaiti world geographic education through a focus on the study of Muslim countries or of countries that contain large proportions of Muslims. For example, 30 of the 55 African countries taught in the third year secondary school to students at Saudi Arabia meet this condition, as do 31 Muslim countries of Asia taught at the same level. Moroccan regional studies subdivide continents such as Africa (Figure 2) and Asia (Figure 3) into geographical zones in which boundaries between countries are completely absent (Amin et al. 1983, 6 and 32). In addition, maps of individual countries do not show the names of adjacent countries (i.e. Figure 5), a practice also followed by the Sudanese. Regionalism for the Sudanese places much emphasis on studying Arab countries in the context of the political call for "Arab nationalism" and "Arab unity" that has been prominent since the early 1970s. However, the Sudanese World Atlas failed to reflect this unity since it deals with countries as separate entities rather than collective groups. Consequently, it doesn't show the continuity or geographical link with adjacent Arab countries by means as simple as showing their names

across boundaries (Figure 5).

Finally, since the image of the world held by Muslim students depends largely on education, we make the following recommendations. They are mainly concerned with improvement of graphic presentation of the geographical information, particularly maps, as well as the geographical information itself. Improvements on geographical education should take into account the following points:

1. A sizeable number of representative countries from each continent should be studied as well as the pattern of nations of each. Broad knowledge of the world is very important in this era of globalization, information technology and a newly emerging political order.
2. Individual countries should not be considered as isolates. They must be seen within the context of adjacent countries. At the very least, this means that the names of other countries should appear on their locations along with the name of the country under study.
3. Using colors to differentiate between countries will make them more visible and definable. This will help students to remember relative and absolute position.
4. The practice of drawing maps should be encouraged at all levels of geographical education, especially during intermediate and secondary school. Students at these ages and levels have natural curiosity about the world and visual display has an attractiveness and ability to communicate information that both supplements written text and can serve as an enticement to those who are more attracted to this educational format.

While our recommendations have focussed mainly on the deficiencies of the Muslim maps, we should point out that they are not the only ones with deficiencies in map knowledge. Referring once more to Table 2, it is evident that most students from the non-Muslim world have a limited grasp of the Muslim nations. Only two Islamic countries were included by over a third of the map sketchers. Many were unknown to 90 to 95% of non-Muslim students. For them we would recommend a new unit containing a holistic look at this vast and varied Afro-Asiatic portion of the human family.

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*We would like to thank our cooperators, Dr. Nasser A. Saleh, Umm Al-Qura University, Makkeh, Saudi Arabia; Prof. M. Belfiqih, Universite de Rabat; Dr. Subhi Al-Matawa, Kuwait University, Kuwait, and Mohamed B. Ibrahim, University of Khartoum, Sudan. Also Prof. Saul Cohen, Dr. Gaffer Mirghani and Prof. Ali Osman for their constructive suggestions and comments, and Mr. Henry Sirotn and Ms. Cynthia Mount for their much-appreciated help.*

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