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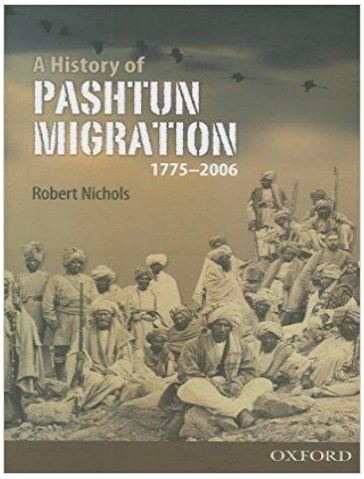
City University of Science and IT

Peshawar

Contents

Book of the Month

A History of Pashtun Migration, 1775-2006



For centuries Pashtuns from the Peshawar Valley and today's Pakistan-Afghan borderlands have circulated throughout the sub-continent and the Indian Ocean region. This interregional history of migration and mobility in the modern period from 1775 to 2006 follows Pashtun individuals and communities as they left homelands and responded to colonial and post-colonial opportunities and challenges in eighteenth century Rohilkhand, nineteenth century northern India and Hyderabad, Pakistan after 1947, and the Gulf region from the nineteenth century to the present. Pashtuns in permanent or temporary diaspora were transformed by the range of possible social consequences as they circulated in South Asia and the greater Indian Ocean region, variously experiencing degrees of assimilation, integration, sustained ethnic self-awareness, and, increasingly, notions of "national" identity. Pashtuns in home villages and in distant locations exhibited personal initiative and agency even as they were affected by wider European imperial policies, national and interregional political competition, and the evolving pressures of an expanding world economy. This work illuminates the history of Pashtuns and Pakistan and offers insight into how Asian regional populations have been integrated into, and often subordinated by, the dynamics of contemporary globalization.

About the Author

Robert Nichols is Associate Professor of History at the Richard Stockton College of New Jersey. He teaches South Asian and Indian Ocean history and has worked on the regional histories of the Pashtun communities of Pakistan and Afghanistan. He also has taught history courses as a lecturer at the University of Pennsylvania and Yale University.

Personality of the Month

Professor Ahmad Hasan Dani (20 June 1920 – 26 January 2009), was a Pakistani intellectual, archaeologist, historian, and linguist. He was among the foremost authorities on Central Asian and South Asian archaeology and history. He introduced archaeology as a discipline in higher education in Pakistan and Bangladesh Throughout his career, Dani held various academic positions and international fellowships, apart from conducting archaeological excavations and research. He is particularly known for archaeological work on pre-Indus Civilization and Gandhara sites in Northern Pakistan. He was also the recipient of various civil awards in Pakistan and abroad. As a prolific linguist, he was able to speak 35 local and international languages and dialects

Dani was born on 20 June 1920 in Basna, Central Provinces, India. He graduated in 1944, with an MA degree, to become the first Muslim graduate of Banaras Hindu University. He scored highest marks in the exams which earned him a Gold Medal. This also qualified him for a teaching fellowship from the same university. Although he was provided with the grant, he was not allowed to teach due to his religious beliefs. He stayed there for six months. In 1945, he started working as a trainee in archaeology under the guidance of Mortimer Wheeler. At this time, he participated in excavations at Taxila and Mohenjo-daro. He was subsequently posted at the Department of Archaeology of British India at Taj Mahal, Agra. He received his PhD from the Institute of Archaeology, University College London.

After the Partition of India, Dani migrated to East Pakistan. There, in 1947–49 he worked as Assistant Superintendent of the Department of Archaeology. At this time, he renovated the Verandra Museum at Rajshahi. In 1949, he married Safiya Sultana. Together, they had three sons (Anis, Navaid and Junaid) and a daughter (Fauzia). In 1950, Dani was promoted to the position of Superintendent-in-Charge of Archaeology. In the same year, he became General Secretary of the Asiatic Society of Pakistan in Dhaka. Later on, in 1955, he took the position of President of the National Committee for Museums in Pakistan. For a period of twelve years (1950–62), Dani

remained Associate Professor of History at the University of Dhaka while at the same time working as curator at the Dhaka Museum. During this period, he carried out archaeological research on the Muslim history of Bengal.

Dani moved to the University of Peshawar in 1962 as Professor of Archaeology and remained there until 1971. During this time, he led the resetting and renovation works for the Lahore and Peshawar Museums. He became Chairman of the Research Society at the University of Peshawar in 1970. In 1971, he moved to the University of Islamabad to become Dean of the Faculty of Social Sciences. He left the post in 1975 to concentrate on research as Professor of History. Meanwhile, the university was renamed Quaid-e-Azam University in 1976. He continued to work in various positions until his retirement in 1980 when he was made Emeritus Professor. During this period, he also served as President of the Archaeological and Historical Association of Pakistan (1979) and Co-Director of the Pak-German Team for Ethnology Research in Northern Areas of Pakistan (1980).

He received an Honorary Doctorate from Tajikistan University, (Dushanbe) in 1993. During the same year, Dani established the Islamabad Museum. In 1992, he was appointed Advisor on archaeology to the Ministry of Culture of Pakistan, serving from 1992–96. Between 1994–98, he remained Chairman of the National Fund for Cultural Heritage in Islamabad. In 1997, Dani became Honorary Director at the Taxila Institute of Asian Civilizations. He held the position until the time of his death.

On 22 January 2009, he was admitted to the Pakistan Institute of Medical Sciences in Islamabad with heart, kidney and diabetes problems. He died on 26 January 2009 at the age of 88 years. He is buried in the H-11 Graveyard of Islamabad.

During his Associate Professorship at Dhaka University, Dani worked as a Research Fellow at the School of Oriental and African Studies, University of London (1958–59). Later, in 1969 he became Asian Fellow at the Australian National University, Canberra. In 1974, he went to the University of Pennsylvania in Philadelphia as a visiting scholar. In 1977, he was Visiting Professor at the University of Wisconsin–Madison. Over the span of his career, Dani was awarded honorary fellowships by the Royal Asiatic Society of Bangladesh (1969), the German Archaeological

Institute (1981), the Istituto Italiano per l'Africa e l'Oriente (IsMEO) (1986), and the Royal Asiatic Society (1991).

In 1991, Dani was made an Honorary Citizen of Bukhara and an Honorary Member of the Paivand Society in Tajikistan. He was made an Honorary Life Patron of the Al-Shifa Trust, Rawalpindi, in 1993.

Dani remained engaged in excavation works on the pre-Indus Civilization site of Rehman Dheri in Northern Pakistan. He also made a number of discoveries of Gandhara sites in the Peshawar and Swat Valleys, and worked on Indo-Greek sites in Dir. From 1980, he was involved in research focusing on the documentation of the rock carvings and inscriptions on ancient remains from the Neolithic age up to the late Buddhist period in the high mountain region of Northern Pakistan along with Karl Jettmar, Volker Thewalt and (much later, since 1989) Harald Hauptmann of the Heidelberg Academy of Sciences, University of Heidelberg. In 1990–91, he led the UNESCO international scientific teams for the Desert Route Expedition of the Silk Road in China and the Steppe Route Expedition of the Silk Road in the Soviet Union.

From his extensive fieldwork and research experience, Dani refuted any influence of South Indian culture on the Indus Valley Civilization. Using a geographic perspective of the socio-political systems and cultural distribution of the Indus Basin and surrounding hinterland, he observed that the Indo-Gangetic Plain did not play any significant role in the development of Indus Valley culture.[8] Nor was there any invasion from the seaside during the Bronze Age, although the coastline facilitated maritime trade. The major influence, according to Dani, came from Central Asia in the west. He asserted that the hilly western borderland that appears as a boundary to the external eye is actually a network of hill plateaus where the local people have always moved freely. He therefore argued that the cultural history of Pakistan is more closely related to Central Asia through Buddhist, Persian and later Sufi influences. He strove to revive this relationship by promoting organisations such as the Pak-Central Asia Friendship Association.

Dani maintained that despite the Arabian Sea allowing the Meluhhans to establish trade relations with Mesopotamia and Ancient Egypt, the majority of historical movements occurred between Central and South Asia. The geographic location as a link between the two regions has

characterised the relationship "between the people of Pakistan and those of Central Asia in the field o The first Muslim student of Banaras Hindu University, Dani scored highest in the graduation exams and received the J. K. Gold Medal from that university in 1944. Among other national awards, he received Sitara-e-Imtiaz in 1969, Aizaz-e-Kamal in 1992 and Hilal-e-Imtiaz in 2000 from the Government of Pakistan. In 2004, he was awarded the title of 'Distinguished National Professor' by the Higher Education Commission in recognition of his contributions and achievements.

Internationally, his contributions to archaeology, linguistics and ancient history were commended through various prestigious honours and awards such as:

- 1998 Légion d'honneur, President of the French Republic
- 1997 Aristotle Silver Medal, UNESCO
- 1996 Order of the Merit, Government of Germany
- 1994 Knight Commander, Government of Italy
- 1990 Palmes Academiques, Government of France
- 1986 Gold Medal, Asiatic Society of Bangladesh

Dani had more than 30 published books and numerous journal articles to his credit. He spoke 35 languages and dialects, and was fluent in Bengali, French, Hindi, Kashmiri, Marathi, Pashto, Persian, Punjabi, Sanskrit, Saraiki, Sindhi, Tamil, Turkish, English and Urdu languages.[4] He also published various texts in most of these languages

Books

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Google Tricks That Will Change the Way You Search

Google Search's learning curve is an odd one. You use it every day, but still all you know is how to search. But the search engine has plenty of tricks up its sleeve.

Here's an overview of some of the most useful Google search tricks, from basic tips to new features just recently released.

1. Use quotes to search for an exact phrase

This one's a well-known, simple trick: searching a phrase in quotes will yield only pages with the same words in the same order as what's in the quotes. It's one of the most vital search tips, especially useful if you're trying to find results containing a specific a phrase.

2. Use an asterisk within quotes to specify unknown or variable words

Here's a lesser known trick: searching a phrase in quotes with an asterisk replacing a word will search all variations of that phrase. It's helpful if you're trying to determine a song from its lyrics, but you couldn't make out the entire phrase (e.g. "imagine all the * living for today"), or if you're trying to find all forms of an expression (e.g. "* is thicker than water").

3. Use the minus sign to eliminate results containing certain words

You'll want to eliminate results with certain words if you're trying to search for a term that's generating a lot of results that aren't of interest to you. Figure out what terms you're not interested in (e.g. jaguar -car) and re-run the search.

4. Search websites for keywords

Think of the "site:" function as a Google search that searches only a particular website. If you want to see every time TIME.com mentioned Google, use the search "Google site:TIME.com".

5. Search news archives going back to the mid-1880s

Google News has an option to search over 100 years' worth of archived news from newspapers around the world.

6. Compare foods using “vs”

Can’t decide between a burger or pizza for dinner? Type in “rice vs. quinoa,” for example, and you’ll receive side-by-side comparisons of the nutritional facts.

7. Filter search results for recipes

If you search your favorite food, and then click “Search Tools” right under the search bar, you’ll be able to filter recipes based on ingredients, cook time and calories. It’s the perfect tool if you have certain dietary restrictions.

8. Use “DEFINE:” to learn the meaning of words—slang included

Streamline the dictionary process by using, for example, “DEFINE: mortgage.” For words that appear in the dictionary, you’ll be able to see etymology and a graph of its use over time alongside the definition. Google will even sift the web to define slang words or acronyms. Try out “DEFINE: bae” or “DEFINE: SMH”.

9. Tilt your screen by searching “tilt”

This is one of the fun additions built in by Google engineers. Try it out yourself (search without quotes).

10. Play Atari *Breakout* by searching it on Google Images

The legendary brick breaker game is available for easy access on Google. Just search “Atari Breakout” (without quotes) on Google Images and enjoy.

11. Search images using images

Ever come across a photo that looks strangely familiar? Or if you want to know where it came from? If you save the image, and then search it on Google Images (with the camera button), you’ll be able to see similar images on the web.

12. Press the mic icon on Google's search bar, and say "flip a coin" or "heads or tails"

The feature released last month lets Google flip a coin for you when you don't have one on hand.

13. Press the mic icon on Google's search bar, and say "give me a love quote" or "I love you"

The love quote generator is also a feature released last month for those in need of a little romance.

Faculty Research

Contents lists available at ScienceDirect

Results in Physics

journal homepage: www.journals.elsevier.com/results-in-physics

Comparison and analysis of the Atangana–Baleanu and Caputo–Fabrizio fractional derivatives for generalized Casson fluid model with heat generation and chemical reaction

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ABSTRACT

Atangana and Baleanu (AB) in their recent work introduced a new version of fractional derivatives which uses the generalized Mittag-Leffler function as the non-singular and non-local kernel and accepts all properties of fractional derivatives. This articles aims to apply the AB fractional derivative to free convection flow of generalized Casson fluid due to the combined gradients of temperature and concentration with heat generation and first order chemical reaction. For the sake of comparison, this problem is also solved via Caputo-Fabrizio (CF) derivative technique. Exact solutions in both cases of AB and CF derivatives are obtained via Laplace transform and compared graphically as well as in tabular form. In the case of AB approach, the influence of pertinent parameters on velocity field is displayed in plots and discussed. It is found that for a unit time, the velocities obtained via AB and CF derivatives are identical. Velocities for the time less than 1 show little variation and for time bigger than 1, this variation increases.

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Magnetohydrodynamic flow of brinkman-type engine oil based MoS_2-nanofluid in a rotating disk with hall effect

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ABSTRACT

Nanotechnology currently has an important role in reducing engine wear and improving fuel efficiency within engines using nanoparticles in engine oil. Therefore, the work reported in this paper, aims to investigate the magnetohydrodynamic (MHD) flow of Brinkman-type Engine Oil-based Molybdenum disulfide (MoS_2) nanofluid (BEOBMN) in a rotating frame along with Hall effect and thermal radiation. The problem is modeled in terms of partial differential equations with physical initial and boundary conditions. The Laplace transform technique is used to evaluate the exact solutions for velocity and temperature profiles. Graphical results are obtained through a computational software Mathcad and discussed for various embedded parameters. The Skin-friction and Nusselt number are computed in the tabular form and it is noticed that the rate of heat transfer enhances 6.35% by adding MoS_2 in engine oil which improved its lubrication.

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Research articles

Flow of magnetic particles in blood with isothermal heating: A fractional model for two-phase flow

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ABSTRACT

In the sixteenth century, medical specialists were of the conclusion that magnet can be utilized for the treatment or wipe out the illnesses from the body. On this basis, the research on magnet advances day by day for the treatment of different types of diseases in mankind. This study aims to investigate the effect of magnetic field and their applications in human body specifically in blood. Blood is a non-Newtonian fluid because its viscosity depends strongly on the fraction of volume occupied by red cells also called the hematocrit. Therefore, in this paper blood is considered as an example of non-Newtonian Casson fluid. The blood flow is considered in a vertical cylinder together with heat transfer due to mixed conviction caused by buoyancy force and the external pressure gradient. Effect of magnetic field on the velocities of blood and magnetic particles is also considered. The problem is modelled using the Caputo-Fabrizio derivative approach. The governing fractional partial differential equations are solved using Laplace and Hankel transformation techniques and exact solutions are obtained. Effects of different parameters such as Grashof number, Prandtl number, Casson fluid parameter and fractional parameters, and magnetic field are shown graphically. Both velocity profiles increase with the increase of Grashoff number and Casson fluid parameter and reduce with the increase of magnetic field.

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