

## SPECIAL REPORT

# Scientists become targets in Iraq

Violence is common currency in Iraq, but one group is increasingly and persistently singled out — academics.

**Declan Butler** reports on the risks run by researchers as they struggle to pursue their studies.

A chemist's mutilated body dumped on a street in Basra; a physicist shot twice in the back in Baghdad; a dean of engineering kidnapped by a hit squad, his body left on his wife's doorstep. Each week brings reports from Iraq of assassinations or kidnappings of scientists, academics and intellectuals, in what many argue is a systematic effort to eliminate or exile a group crucial to the country's reconstruction.

One of the first academics murdered was Muhammad al-Rawi, president of Baghdad University, assassinated in his clinic by a hit squad on 27 July 2003. In the chaos of Iraq, precise body counts are impossible, but observers have recorded several hundred assassinations of academics, with the rate of killings increasing over the past 18 months (see 'Victims of violence'). More than 2,000 scientists are thought to have fled abroad.

Lack of investigation and prosecutions means little is known about the motives of the killers. Dlawer Ala'Aldeen, an Iraqi microbiologist at the University of Nottingham, UK, cautions that it is generally impossible to attribute assassinations to any one cause or group.

Some academics were part of the apparatus of Saddam Hussein's Ba'ath party and were victims of revenge, particularly in the aftermath

of Hussein's fall, says Ala'Aldeen.

But he believes there is now a broader range of political drivers. "The universities reflect the power struggles among the various groups in wider society," he says, with a war being waged between secular, Islamic and other factions. "It's so easy these days to lose your life in Iraq."

The breakdown in security and stability under the US occupation has also led to spiralling levels of organized crime and corruption. Mohamed Al-Rubeai, an Iraqi chemical engineer at University College Dublin, Ireland, thinks academics are killed simply as part of wider attempts by "terrorists and Ba'athists" to target anyone trying to restore normality in Iraqi society.

Nonetheless, many scientists — including Ala'Aldeen — are convinced that academics are being singled out. "Some of these murders are instigated by greed and criminality," says Rafid Alkhaddar, a water engineer at Liverpool John Moores University, UK. "But I and a vast number of Iraqis believe that there is an organized campaign to eliminate any remaining intellectuals inside Iraq."

"Terrorist forces are out to scare the scien-



tific community," agrees Abbas Al-Hussaini, a civil engineer at the University of Westminster, UK, and general-secretary of the Iraq Higher Education Organizing Committee (IHEOC) in London, created in January 2004 to help reconstruct Iraq's devastated research and higher-education system.

Scientists and academics in Iraq enjoy "much greater prestige and status than in the West, and could transform it into a modern society," says Al-Hussaini. "That is why they are being targeted." He too believes the main perpetrators are former members of the Ba'ath party.

Some Ba'athists are also cynically highlighting the plight of academics "to imply that the situation is worse than under Saddam", he claims. "In one way it is, but under Saddam's brutal dictatorship people had no rights; the future is now more hopeful."

Others take conspiracy theories further. The BRussels Tribunal, a Brussels-based people's court modelled on the Russell Tribunal, a US movement opposed to the Vietnam War, believes the killings are due to militia death squads associated with US forces. The tribunal is made up of prominent intellectuals, human-rights campaigners and non-governmental organizations, including linguist and left-wing campaigner Noam Chomsky, and Denis Halliday, former United Nations humanitarian coordinator in Iraq.

The tribunal launched a petition in April,



M. SWARUP/AP

## UNDER THE GUN

Hard figures on attacks in Iraq are hard to come by. Estimates for the number of attacks on academics between April 2003 and May 2006 vary from around 250 to more than 1,000. Ismail Jalili, an ophthalmic surgeon based in London, believes the figure is around 550. Out of 307 reports that he analysed, he found the following:

**74%** of attacks were fatal

**80%** of attacks targeted university staff

**62%** of victims were educated to PhD level

**31%** of victims were scientists, **23%** medics

**57%** of attacks occurred in Baghdad, **14%** in Basra, and **11%** in Mosul

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Military forces are a common sight at Baghdad University's campus, pictured here and below left.

signed by many intellectuals including several Nobel prizewinners in literature, describing the killing of academics as the "decimation of the secular middle class — which has refused to be co-opted by the US occupation".

Ophthalmic surgeon Ismail Jalili, former president of the UK Iraqi Medical Association and a member of the board of the British Arab Medical Association, takes a similar line. Jalili, who fled Iraq in 1969 after being imprisoned and tortured, says he believes many of the killings bear the "hallmark" of professionals (see "Under the gun").

But despite varying views about who is behind the killings, Iraqis agree that the assassinations are unlikely to stop soon, and that the targets need protection. Most killings take place on the way to or from work, so Mosa Al-Mosawe, president of Baghdad University, suggests building a residential complex on campus, with armed guards, to protect staff and their families.

Foreign universities need to shelter Iraqi researchers who have received death threats, says Al-Hussaini. Since the fall of Baghdad, Al'Aldeen has arranged for many Iraqis to work at the University of Nottingham. But

many Western institutions are unaware of the issue, says Al-Hussaini. "Often it is only a matter of getting researchers and their families out for a few months," he says, to get them out of the line of fire.

The insurgency has undermined university reconstruction efforts "beyond belief", says Al'Aldeen. For the first time, this year no Iraqi students or staff are coming to Nottingham. "They don't reply to e-mails; their focus has gone; they can't plan; their lives are shattered."

"Under mayhem and terrorism, a very advanced academic system, the star of the Middle East, has been reduced to nothing," he says. "It's heartbreaking to see a bunch of bright academics who should be rebuilding unable to do so."

One glimmer of hope is Kurdistan in the north of Iraq, where many of the country's scientists have moved. The region, which has been relatively autonomous from both Saddam Hussein and US forces, is a haven of relative security. University reconstruction is proceeding apace, and Al'Aldeen intends to hold the next IHEOC conference there next April. "It's symbolic; it will be in Iraq," he says. "We are excited about it." ■

D. VRANIC/AP

## VICTIMS OF VIOLENCE

### Ali Hassan Mahawish



Ali Hassan Mahawish, a materials researcher and dean of the engineering

college at Mustansiriyah University in Baghdad, had been working on a project to develop unified design codes for the country's huge reconstruction programme. "It was vitally important for all engineering design and construction work in Iraq," says Abbas Al-Hussaini, a civil engineer at the University of Westminster, UK, who was Mahawish's partner on the project. Both men had also worked since 2003 on a scheme to twin researchers in Iraq with counterparts abroad.

In February, as Mahawish was being driven to work with his wife, armed men intercepted the car and asked his wife and driver to leave, recalls Al-Hussaini. "They phoned with a ransom demand, but a few days later his wife found his body dumped outside her door." Al-Hussaini is convinced that

Mahawish was killed because of his involvement in the reconstruction.

In an obituary on 12 March, the Arab Science and Technology Foundation mourned Mahawish as "a distinguished Iraqi scientist and sincere academic". He had been one of 20 top Iraqi scientists selected by the foundation to work on research "that addresses the needs and priorities of the Iraqi community".

### Wissam Al-Hashimi



At the American Association of Petroleum Geologists annual meeting in Paris in September last

year, renowned Iraqi geologist Wissam Al-Hashimi was due to give a paper on carbonate reservoirs in Mesopotamia. His slot was filled instead with a memorial service, recalls Muhammad Ibrahim, a geologist with Target Exploration in London.

Al-Hashimi, an expert in the porosity of dolomite, was kidnapped on 24 August 2005; his

car was intercepted on his way to work in Baghdad. Ibrahim, who grew up with him and is a friend of the family, says they paid a ransom. But Al-Hashimi's daughter found his body two weeks later in a Baghdad hospital, shot twice in the head. "She went from mortuary to mortuary looking every day," says Ibrahim. "His eyes had been pulled out during torture. I didn't know human beings could go so low."

Al-Hashimi, who published extensively on sedimentology and water resources in the Middle East, had a long academic career abroad before returning to Iraq in 1972 to head the mineralogy wing of the Geological Survey of Iraq. When he died, he was a consultant and member of the board of the Iraqi Drilling Company, and secretary general of the Arab Geologists Association.

### Sabah al-Jaf

Sabah al-Jaf, a top official at the Iraqi education ministry, was gunned down in the Al-Karradah area of Baghdad on 22 May this year; one of his bodyguards was also killed, and

a second seriously wounded. Koichiro Matsuura, director-general of the United Nations Educational, Social and Cultural Organization (UNESCO), condemned the assassination, and the escalating attacks on academics. "By targeting educators, the perpetrators of such violence are undermining the reconstruction of Iraq and jeopardizing the future of the country and of democracy."

Al-Jaf was the third senior ministry official to be assassinated. Last year, he introduced a system to put all exam results on the Internet, with the idea that greater transparency would reduce nepotism; in the past, students with connections in government could expect better results. UNESCO had several projects with al-Jaf and other ministry officials. "Education is one of the most vital sectors for the Iraqi people," says Mohamed Djelid, director of the organization's Iraq office in Amman, Jordan. "We are just trying to maintain a minimum, trying to keep schools and universities open and have exams held." ■

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