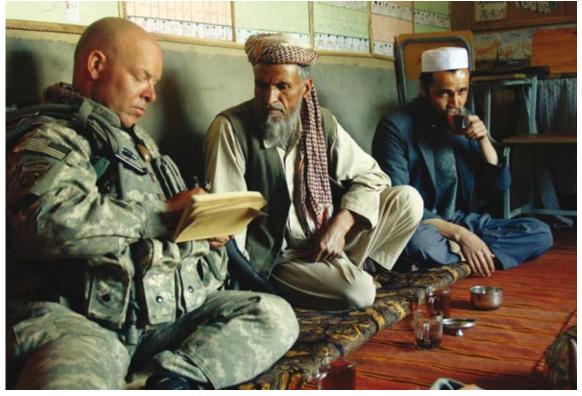
'Human terrain'

Past, present and future applications

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Fig. 1. US Army Major Robert Holbert takes notes as he talks and drinks tea with local school administrators during a cordon and search of Nani, Afghanistan, on 2 June 2007. Holbert, a Human Terrain Team member, was attached to the 4th Brigade Combat Team, 82nd Airborne Division.



DOD PHOTO BY STAFF SGT. MICHAEL L. CASTEEL, US ARMY

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1. Currently, there are five HTTs in Iraq and one in Afghanistan. Central Command (CENTCOM) require 26 HTTs to be deployed. It is unclear whether other US government agencies have been involved in the design or implementation of the programme.

- 2. Zenia Helbig (personal communication, 6 December 2007)
- 3. According to *USA Today* (Jayson 2007), the initial cost of HTS was \$20 million. According to the *New York Times* (Rohde 2007), the cost of HTS expansion will be \$40 million. Together then, this will amount to \$60 million.
- 4. AAA statement at http://www.aaanet.org/blog/ resolution.htm. The Society for Applied Anthropology has equivocated on HTS: 'The SfAA is not a disciplinespecific association and thus we do not feel equipped to decide whether there are particular aspects of the disciplines of "anthropology" and/or "sociology" or of other disciplines which are violated by the participation of its members in the HTS [...] There is nothing in the SfAA Code of Ethics which is directly affected by the HTS (Andreatta 2007: 2). SfAA's ethics code contradicts this claim.

This article provides a more detailed account of the 'human terrain' concept first addressed in Roberto González's comment in the previous issue of ANTHROPOLOGY TODAY (AT 23/6]: 21-22) (Ed.).

Between July 2005 and August 2006, the US Army put together an experimental counterinsurgency programme called 'Human Terrain System' (HTS). The programme's building blocks are five-person teams ('Human Terrain Teams' or HTTs) assigned to brigade combat team head-quarters in Iraq and Afghanistan, comprising regional studies experts and social scientists, some of whom are armed.\(^1\)

This programme, which emerged as the result of the military's alleged interest in culture, has been uncritically portrayed in the media as saving lives, thanks to what appears to be an orchestrated Pentagon public relations campaign (e.g. Rohde 2007a, Peterson 2007, Mulrine 2007). Yet the way in which HTS has been packaged – as a kinder, gentler counterinsurgency – is completely unsupported by evidence. Despite HTS supporters' frequent claims that the programme has drastically reduced US 'kinetic operations' (military attacks) in Afghanistan, Pentagon officials have not responded to requests for data to back up such claims, and there has been no independent confirmation of these assertions. Indeed, there is no verifiable evidence that HTTs have saved a single life - American, Afghan, Iraqi or otherwise. According to Zenia Helbig (a former HTT member), an internal evaluation team that recently produced a positive report on HTS included evaluators with a vested interest in the programme.2 It appears that HTS has two faces: one designed to rally public support for an increasingly unpopular war, and the other to collect intelligence to help salvage a failing occupation.

It is far more likely that HTS was created as an espionage programme. As the army launched HTS, some military analysts described it as 'a CORDS for the 21st century' (Kipp et al. 2006), in reference to Civil Operations Revolutionary

Development Support, a Vietnam War-era counterinsurgency effort. CORDS gave birth to the infamous Phoenix Program, in which South Vietnamese officials and US agents gathered intelligence data to help target tens of thousands of people for 'neutralization' (incarceration or assassination), including many civilians (Valentine 1990). At the time, CORDS was publicly hailed as a humanitarian project for winning 'hearts and minds', while Phoenix simultaneously (and secretly) functioned as its paramilitary arm. This dubious history provides a critical reference point for understanding the potential uses of HTS.

It appears that the Pentagon has not released an official description of the HTS programme, and much remains unknown. Yet with a budget of approximately \$60 million,³ this may be the most expensive social science project in history. The programme deserves close scrutiny and critique, since HTS social scientists have discussed aspects of it in ways that do not square with military journals, job announcements and journalists' accounts. For example, some anthropologists involved in HTS have maintained that social scientists do not conceal their identities in Afghanistan, yet journalists have contradicted this claim (Rohde 2007b). In addition, HTS leaders have claimed that the data collected by HTS personnel is open and unclassified, yet James K. Greer (deputy director of HTS), has been quoted as saying: 'When a brigade plans and executes its operations, that planning and execution is, from an operational-security standpoint, classified. And so your ability to talk about it, or write an article about it, is restricted in certain ways' (Glenn 2007b). Such issues motivated a group of anthropologists—the Network of Concerned Anthropologists—to oppose involvement in counterinsurgency work and in direct combat support in summer 2007. In the light of the ethical concerns and potential conflicts articulated by these scholars, the American Anthropological Association (AAA) Executive Board issued a statement last November expressing disapproval 5. HUAC suggested that urban unrest might require that the president declare an 'internal security emergency' which would enable a 1950 law authorizing detention of suspected spies or saboteurs. Much of the law was repealed in the 1970s, but some elements were restored in the Patriot Act.

6. Foreign Report
'specialize[d] in sensational
rumors from the world's
intelligence agencies'
(Chomsky and Herman
1979: 173). One of Moss's
books was reportedly funded
by the CIA as pro-Pinochet
propaganda in the 1970s
(Landis 1985).

7. Peters (2006) suggests radically redrawing Middle East borders: Iraq would be partitioned into an 'Arab Shia state', 'Sunni Iraq' and 'free Kurdistan' (including eastern Turkey): 'free Baluchistan' would be carved from southeastern Iran and southwestern Pakistan: Afghanistan would absorb much of northwestern Pakistan: half of Saudi Arabia's territory would be distributed to Yemen, 'Greater Jordan' and a new 'Islamic sacred state'

8. John Agoglia interview, The Diane Rehm Show, American University Radio, 10 October 2007.

9. 'Green layer' data refers to information related to the general populations (as opposed to 'blue layer [coalition forces] or 'red laver' [insurgents]) in occupied Iraq and Afghanistan. The Defense Secretary allocated \$500,000 in 2007, \$2.7 million in 2008, and \$1.3 million in 2009 for MAP-HT. See http://www. dtic.mil/descriptivesum/ Y2008/OSD/0603648D8Z. pdf (accessed 20 November 2007) MAP-HT software was developed by the Mitre Corporation, according to Zenia Helbig (personal communication, 6 December 2007)

10. Montgomery McFate interview, *Here and Now*, National Public Radio, 12 October 2007.

11. See http://www. dartmouth.edu/~humanterrain/ (accessed 15 November 2007).

Fig. 2. Mapping the Human Terrain 'enables the entire kill chain', as asserted in this unclassified presentation by John Wilcox, Assistant Deputy Under Secretary of Defense (Precision Engagement) at the Precision Strike Winter Roundtable. 'Precision engagement - Strategic context for the Long War: Weapons technology blueprint for the future', I February 2007.

of the programme (see González 2007).⁴ At the 2007 AAA conference, members also adopted a non-binding resolution opposing certain kinds of secrecy in anthropological work – a resolution motivated by concerns about HTS.

The origins of 'human terrain'

Recently defined as 'the social, ethnographic, cultural, economic, and political elements of the people among whom a force is operating... defined and characterized by sociocultural, anthropologic, and ethnographic data' (Kipp et al. 2006: 9, 15), the concept of human terrain has become increasingly popular in US military circles.

Human terrain is often contrasted with geophysical terrain – a familiar concept for senior officers trained for conventional warfare against the Soviets. It implies that 21st-century warriors will fight 'population-centric' wars (Kilcullen 2007); therefore, the key to successful warfare is the control of *people*. This is more than a 'hearts-and-minds' approach, for the emphasis lies primarily on exploitation of 'tribal', political, religious and psychological dynamics: 'in Iraq, US and coalition forces must recognize and exploit the underlying tribal structure of the country; the power wielded by traditional authority figures; the use of Islam as a political ideology; the competing interests of the Shia, the Sunni, and the Kurds; the psychological effects of totalitarianism; and the divide between urban and rural' (McFate 2005a: 37).

Human terrain is not a new concept. Its reactionary roots stretch back 40 years, when it appeared in a report by the infamous US House Un-American Activities Committee about the perceived threat of Black Panthers and other militant groups. From the beginning, human terrain was linked to population control:

Traditional guerrilla warfare... [is] carried out by irregular forces, which just about always dispose of inferior weapons and logistical support in general, but which possess the ability to seize and retain the initiative through a superior control of the human terrain. This control may be the result of sheer nation-wide support for the guerrillas against a colonial or other occupying power of foreign origin; it may be the result of the ability of the guerrillas to inflict reprisals upon the population; and it can be because the guerrillas promise more to the population. (US HUAC 1968: 62)⁵

Human terrain appeared again in *The war for the cities* (1972) by Robert Moss, a right-wing journalist who in the 1970s edited *Foreign Report*, a journal affiliated with *The Economist*. Like HUAC, Moss examined the threat of diverse 'urban guerrillas' including the Black Panthers, Students for Democratic Society, and Latin American insurgents. Human terrain appeared in reference to the latter: '[T]he failure of the rural guerrillas to enlist large-scale peasant backing in most areas also showed up in their distorted view of the political potential of the peasantry and their failure to study the human terrain... Che Guevara's ill-conceived Bolivian campaign was the supreme example of these deficiencies' (Moss 1972: 154).

Contemporary human terrain studies date back seven years, when retired US Army Lieutenant Colonel Ralph Peters published 'The human terrain of urban operations' (2000). Peters has written more than 20 books, yet is more widely known as a neoconservative pundit.⁷

For years, Peters has espoused a bloody version of Huntington's 'clash of civilizations' thesis. He has argued that the US military will have to inflict 'a fair amount of killing' to promote economic interests and a 'cultural assault' aimed at recalcitrant populations:

There will be no peace [...] The de facto role of the US armed forces will be to keep the world safe for our economy and open to our cultural assault. To those ends, we will do a fair amount of killing. We are building an information-based military to do that killing [...] much of our military art will consist in knowing more about the enemy than he knows about himself, manipulating data for effectiveness and efficiency, and denying similar advantages to our opponents. (Peters 1997: 14)

Peters (2000: 4) has also argued that it is the 'human architecture' of a city, its 'human terrain... the people, armed and dangerous, watching for exploitable opportunities, or begging to be protected, who will determine the success or failure of the intervention'. He describes a typology of cities ('hierarchical', 'multicultural' and 'tribal') and the challenges that each present to military forces operating there: 'the center of gravity in urban operations is never a presidential palace or a television studio or a bridge or a barracks. It is always human' (ibid.: 12).

Challenges for DoD Investment

- What Have We Learned?



- Need to 'Map the Human Terrain' across the Kill Chain
 - Enables the entire Kill Chain for the GWOT
- Target Detection may be Difficult and Require Non-Traditional Means
- Enemy Exists inside potentially High Collateral Damage Areas
 - And... in Denied Access Areas
- Sometimes We ID the Enemy but....
 - ... do not have an adequate/appropriate Strike Solution in time
- Mobile / Re-locatable Targets Remain a Problem!
- The Target Characteristics may Remain Unknown even at...
 Time Over Target ... & "How Did We Do?"
- If Decision Timeline Varies and can be Long... let's Enable the Rest of the Kill Chain to be Dynamically Responsive

Fig. 3. Dr Dave Matsuda, lecturer in anthropology and human development at California State University, East Bay, working as a cultural analyst with the Human Terrain Team attached to the 2nd Brigade Combat Team, 82nd Airborne Division, in Baghdad, 31 October 2007.



- 12. See http://www. dartmouth.edu/ %7Ehumanterrain/Approach. html (accessed 15 November 2007)
- 13. US Air Force request for proposals posted at http:// www.dodsbir.net/Topics/ BasicTopicsResultsForm. asp?RanNo=8&bookmark= 32088&rec=1 (accessed 22 November 2007).
- 14. US Navy request for proposals posted at http://www.dodsbir.net/Topics/BasicTopicsResultsForm.asp?RanNo=10&bookmark=31858&rec=9 (accessed 22 November 2007).
- 15. See http://www.dtic.mil/ndia/2007psa_winter/wilcox.pdf (accessed 20 November 2007).
- 16. For a similar depiction of how 'focusing on the 'human terrain'" can help 'exploit vulnerabilities', see presentation by retired Colonel Greg Jannarone (US Air Force Behavioral Influences Analysis Center) at http://www.au.af.mil/bia/slides/bia_msn_bfg.pdf (accessed 15 December 2007).
- 17. Zenia Helbig (personal communication, 6 December 2007). In the same communication, Helbig also noted that BAE Systems, responsible for HTT recruitment and training, was exceedingly inept and more concerned with maximizing profits than with meeting programme objectives. According to Helbig, BAE Systems was awarded the HTS contract through an 'omnibus' provision giving preferential consideration to existing contractors. If true, this would fit a decadesold pattern of a privatized Pentagon characterized by mismanagement, waste and war profiteering.
- Andreatta, S. 2007. Human Terrain/Department of Defense. *SfAA Newsletter* 18(4):1-3.
- Bhattacharjee, Y. 2007. Pentagon asks academics for help in understanding enemies. *Science* 316:534-535.

As Peters' ideas began circulating among military analysts, others gradually adopted human terrain. Lieutenant Colonel Michael Morris (2005: 46) noted that the 'purpose of [al-Qaeda's] covert infrastructure [or "shadow government"] is to operationalize control of human terrain'. A year later, Lieutenant Colonel Richard McConnell and colleagues (2006: 11) suggested that US 'military transition teams' training Iraqi troops needed a better understanding of 'human terrain': 'you are not here to make this into an American unit – you are here to help this unit become the best Iraqi unit it can be'. Lieutenant Colonel Fred Renzi (2006: 16) made the case for 'ethnographic intelligence' to help understand 'terra incognita... the terra in this case is the human terrain'.

Some CIA agents also appropriated the term. Henry Crumpton (2005: 170), leader of the CIA's Afghan campaign post-9/11, has written about agents working there during that period, including one 'who spoke Farsi/Dari, [and] was a cultural anthropologist intimately familiar with the tribes of the region [...] These CIA officers needed to map the human terrain of their patch in Afghanistan, while understanding and contributing to the larger strategy.' In spite of Crumpton's use of the term, so far there is no indication of CIA involvement with HTS.

Pundits and think tanks have enthusiastically embraced 'human terrain'. Conservative columnist Max Boot (2005) wrote a commentary entitled 'Navigating the "human terrain", in which he referred to the need for 'Americans who are familiar with foreign languages and cultures and proficient in such disciplines as intelligence collection and interrogation'. The RAND Corporation commissioned two counterinsurgency monographs advocating the importance of 'understanding the human terrain', though the emphasis is on information technologies and cognitive mapping rather than ethnographic expertise (Libicki et al. 2007, Gompert 2007).

Before examining the genesis of HTS, it is worth looking at 'human terrain' from a linguistic perspective. The Sapir-Whorf hypothesis (which postulates that language influences the thought - and consequently actions – of its users) suggests that the term 'human terrain' will tend to have objectifying and dehumanizing effects. Consider the words of US Army Lieutenant Colonel Edward Villacres, who leads an HTT in Iraq: the team's objective is to 'help the brigade leadership understand the human dimension of the environment that they are working in, just like a map analyst would try to help them understand the bridges, and the rivers, and things like that' (Villacres 2007). The unusual juxtaposition of words portrays people as geographic space to be conquered – human beings as territory to be captured, as flesh-and-blood terra nullius. Much more serious is the way the term (like 'collateral damage' and 'enhanced interrogation') vividly illustrates George Orwell's (1946) notion of 'political language... designed to make lies sound truthful and murder respectable'.

The birth of HTS

How did 'human terrain' become a system? By 2006, desperation about mismanagement of the wars had set in among many military and intelligence officials. US casualties were mounting, Iraqi insurgent groups were becoming stronger, and Taliban fighters were regrouping. Some began seeking 'gentler' counterinsurgency tactics, according to an uncritical account prepared for the US Army War College's Strategic Studies Institute by anthropologist Sheila Miyoshi Jager:

In sharp contrast to former Secretary of Defense Donald Rumsfeld's heavy-handed approach to counterinsurgency which emphasized aggressive military tactics, the post-Rumsfeld Pentagon has advocated a 'gentler' approach, emphasizing cultural knowledge and ethnographic intelligence [...] This 'cultural turn' within DoD highlights efforts to understand adversary societies and to recruit 'practitioners' of culture, notably anthropologists, to help in the war effort in both Iraq and Afghanistan. (Jager 2007: v)

An early advocate was Major General Robert Scales, who told the US House Armed Services Committee that 'the British Army created a habit of "seconding" bright officers to various corners of the world so as to immerse them in the cultures of the Empire [...] At the heart of a cultural-centric approach to future war would be a cadre of global scouts [...] They should attend graduate schools in disciplines necessary to understand human behavior and cultural anthropology' (Scales 2004: 4-5). Backed up by Scales' ringing endorsement of imperialist strategy, the political groundwork was set for anthropological participation in 'cultural-centric' warfare.

Scales would need not wait long. In 2005, Montgomery McFate and Andrea Jackson published a pilot proposal for a Pentagon 'Office of Operational Cultural Knowledge' focused on 'human terrain' and consisting of social scientists with 'strong connections to the services and combatant commands' (McFate and Jackson 2005: 20). They would provide:

- 1. 'on-the-ground ethnographic research (interviews and participant observation)' on the Middle East, Central Asia, etc.;
- 2. 'predeployment and advanced cultural training... [and] computer-based training on society and culture';
- 3. 'sociocultural studies of areas of interest (such as North Korean culture and society, Iranian military culture, and so on)';
- 4. 'cultural advisers for planning and operations to commanders on request' and 'lectures at military institutions';
- 5. 'experimental sociocultural programs, such as the cultural preparation of the environment a comprehensive and constantly updated database tool for use by operational commanders and planners' (ibid.: 20-21).

Initial costs for the first year were estimated at \$6.5 million. The proposal was consistent with one of the authors' earlier provocative (if historically dubious) suggestions: 'the national security structure needs to be infused with anthropology, a discipline invented to support warfighting in the tribal zone' (McFate 2005b: 43).

Soon after, Jacob Kipp and colleagues from the army's Foreign Military Studies Office at Fort Leavenworth, Kansas outlined the 'Human Terrain System' to 'understand the people among whom our forces operate as well as the cultural characteristics and propensities of the enemies we now fight' (Kipp et al. 2006: 8). Captain Don Smith headed the implementation of HTS from July 2005 to August 2006, and the programme was housed in the Training and Doctrine Command at Fort Leavenworth (ibid.: 15). Each team would comprise a HTT leader (major or lieutenant colonel), a cultural analyst (civilian MA/PhD cultural anthropologist or sociologist), a regional studies analyst (civilian MA/PhD in area studies with area

Fig. 4. BAE Systems, one of the largest European defence contractors, was awarded a contract for $recruiting\ and\ training\ HTS$ personnel for the US Army near Fort Leavenworth. Kansas. According to former HTT member Zenia Helbig. company representatives responsible for HTS demonstrated ineptitude This photo was taken at the corporation's shipyard at Barrow in Furness, Cumbria where the Royal Navy's supersubmarine Astute was being constructed.

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Glenn, D. 2007a. Former Human Terrain System participant describes program in disarray. *Chronicle of Higher Education*, 5 December: 8.

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Kilcullen, D. 2007. 'Two schools of classical counterinsurgency'. Small Wars Journal Blog, 27 January. http:// smallwarsjournal.com/ blog/2007/01/two-schoolsof-classical-count/



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language fluency), an HT research manager (military intelligence background), and an HT analyst (military intelligence background).

In early 2007, BAE Systems began posting HTS job announcements on its company website; it was joined later by Wexford Group (CACI) and MTC Technologies. Before deployment, HTT members received military and weapons training, and in February 2007 the first team arrived in Afghanistan. The others deployed to Iraq in summer 2007.

Proponents insist that HTTs 'are extremely helpful in terms of giving commanders on the ground an understanding of the cultural patterns of interaction, the nuances of how to interact with those cultural groups on the ground'8 - a dubious claim, since none of the PhD-qualified anthropologists working in HTTs have prior regional knowledge (Helbig 2007). However, HTTs are designed to collect regionally specific data on political leadership, kinship groups, economic systems and agricultural production. The data is to be sent to a central database accessible to other US government agencies: the CIA would be particularly interested (González 2007). Furthermore, 'databases will eventually be turned over to the new governments of Iraq and Afghanistan to enable them to more fully exercise sovereignty over their territory' (Kipp et al. 2006: 14). (It is worth remembering that CORDS officials hoped to ensure the South Vietnamese government's political stability through the Phoenix Program, though it was sometimes used as a mechanism for eliminating political opponents; see Valentine 1990.)

HTTs will supply brigade commanders with 'deliverables' including a 'user-friendly ethnographic and sociocultural database of the area of operations that can provide the commander data maps showing specific ethnographic or cultural features' (Kipp et al. 2006: 13). HTTs use Mapping Human Terrain (MAP-HT) software, 'an automated database and presentation tool that allows teams to gather, store, manipulate, and provide cultural data from hundreds of categories' (ibid.) According to the Secretary of Defense's budget, the goal is:

to reduce IED [improvised explosive device] incidents via improved situational awareness of the human terrain by using 'green layer data/unclassified' information to understand key population points to win the 'will and legitimacy' fights and

surface the insurgent IED networks... [C] apability must be further developed to provide a means for commanders and their supporting operations sections to collect data on human terrain, create, store, and disseminate information from this data, and use the resulting information as an element of combat power.⁹ (US OSD 2007: 18)

In unvarnished language, a fuller picture emerges: the goal of HTS data is to help 'win the "will and legitimacy" fights' (perhaps through propaganda), to 'surface the insurgent IED networks' (presumably for targeting), and to serve 'as an element of combat power' (i.e. as a weapon).

HTS supporters have equivocated when confronted with the question of whether such a database might be used to target Iraqis or Afghans. In a radio interview, an HTS architect stated: 'The intent of the programme is not to identify who the bad actors are out there. The military has an entire intelligence apparatus geared and designed to provide that information to them. That is not the information that they need from social scientists.' She claimed that HTT social scientists have 'a certain amount of discretion' with data, while providing no evidence that safeguards exist to prevent others from using it against informants. When asked about lack of independent oversight, she answered: 'We would like to set up a board of advisors. At the moment, however, this programme is proof of concept... [I]t's not a permanent programme. It's an experiment.' (Silverman 2007: 7).10

'Human terrain' as technological fantasy

Pentagon budgets reflect an increasing commitment to so-called 'cultural knowledge' acquisition. Consequently, engineers, mathematicians and computer scientists have demonstrated acute interest in human terrain for modelling, simulation and gaming programs.

Among them is Barry Silverman, a University of Pennsylvania engineering professor who bluntly asks: 'Human terrain data: What should we do with it?' (Silverman 2007). Silverman has been at the forefront of efforts to develop computerized behaviour modelling programs designed to provide insight into the motivations of terrorists and their networks, and he hopes to integrate HTS data into these programs. According to one report, 'a Silverman simulation is an astoundingly sophisticated amalgamation of more than 100 models and theories from

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anthropology, psychology, and political science, combined with empirical data taken from medical and social science field research, surveys, and experiments' (Goldstein 2006: 30). The goal is to predict how various actors – 'a terrorist, a soldier, or an ordinary citizen' – might react to 'a gun pointed in the face, a piece of chocolate offered by a soldier... [Silverman] is now simulating a small society of about 15,000 leader and follower agents organized into tribes, which squabble over resources' (ibid.).

At the heart of Silverman's simulations are 'performance moderator functions' representing 'physical stressors such as ambient temperature, hunger, and drug use; resources such as time, money, and skills; attitudes such as moral outlook, religious feelings, and political affiliations; and personality dispositions such as response to time pressure, workload, and anxiety' (ibid.).

Silverman makes grand claims about the potential utility of HTS data for human social profiling, though he has apparently not yet obtained any of it: 'the HT datasets are an invaluable resource that will permit us in the human behavior M&S [modelling and simulation] field to more realistically profile factions, and their leaders and followers'.

Similarly, a Dartmouth research team has created the Laboratory for Human Terrain, 'focused on the foundational science and technology for modeling, representing, inferring, and analyzing individual and organizational behaviors'.11 It includes an engineer, a mathematician and a computer scientist who specialize in 'adversarial intent modeling, simulation, and prediction', 'dynamic social network analysis' and 'discovery of hidden relationships and organizations'. The Pentagon awarded a \$250,000 grant to Eugene Santos to develop a 'Dynamic Adversarial Gaming Algorithm' (DAGA) for 'predicting how individuals or groups [...] react to social, cultural, political, and economic interactions [...] DAGA can evaluate how rhetoric from religious leaders combined with recent allied killing of radical military leaders, and perceptions of potential economic growth can cause shifts in support from moderate or radical leadership.'12 The Dartmouth group uses the 'Adversary Intent Inferencing' (AII) model, a prototype of which was tested using scenarios replicating Gulf War battles (Santos and Zhua 2006: 13).

These programs are a small part of 'Human Social Culture Behavior Modeling', in which the goal is to 'build computer models... [by] combining recent [insurgent] activity with cultural, political, and economic data about the region collected by DOD-funded anthropologists' – perhaps HTT personnel (Bhattacharjee 2007: 534).

Wired magazine's blog reports a boom in wartime simulation projects, including Purdue University's 'Synthetic Environment for Analysis and Simulation' which can 'gobble up breaking news, census data, economic indicators, and climactic events in the real word, along with proprietary information such as military intelligence. Iraq and Afghanistan computer models are the most highly developed and complex. Each has about five million individual nodes that represent entities such as hospitals, mosques, pipelines, and people' (Shachtman 2007). HTS data could conceivably be incorporated into this computer model

The Air Force Research Lab has requested proposals for modelling programs, and suggests that 'researchers should investigate cultural, motivational, historical, political, and economic data to determine if there are mathematical and statistical models that can be used to predict the formation of terrorist activities... [the] goal is to determine sets of actions that can influence the root cause behaviors and cultivate a culture that does not support the development of criminal activity.' The Navy has requested proposals for a 'Human, Social, and Culture Behavioral Modeling'

simulation tool resembling a video game: 'We are looking for innovative ideas that explore and harness the power of "advanced" interactive multimedia computer games (e.g. "sim games")... [incorporating] the best-practices of the videogame industry, including intuitive controls, storytelling, user-feedback [...] scenario editing, and high quality graphics & sound.'14

These programs focus upon modelling and simulation, but it is not difficult to imagine that in the near future, agents might use cultural profiles for pre-emptive targeting of statistically probable (rather than actual) insurgents or extremists in Iraq, Afghanistan, Pakistan or other countries deemed to be terrorist havens.

Some Pentagon officials have already begun contemplating such applications. In February 2007, a dazzlingly illustrated PowerPoint presentation was released, which unambiguously stated a 'need to "Map the Human Terrain" across the kill chain – enables the entire kill chain for the GWOT [Global War on Terror]' (Fig. 2). 15 The presentation (by Assistant Deputy Undersecretary of Defense James Wilcox) notes that '[s]ometimes we ID the enemy but [...] do not have an adequate/appropriate Strike Solution in time', indicating that at least one senior Pentagon official sees such information as a potentially useful weapon. 16 Despite HTS proponents' claims that the programme will save lives, Pentagon officials are likely to use data in line with their own warfighting plans.

Human terrain: possible futures

Examination of the information available, summarized above, reveals that HTS - and HTS data - may perform various functions simultaneously. Images of a 'gentler' counterinsurgency might serve as propaganda for US audiences opposed to military operations in Iraq and Afghanistan: propaganda that offers the apparently wonderful compromise of fighting a war that makes us feel good about ourselves. Public relations campaigns portraying HTT personnel as life-saving heroes might attract young scholars who want to do good, like the embedded administrators who served colonial interests. Information collected by HTTs might feed into a database accessible to the CIA, the Iraqi police or the Afghan military for strategic or tactical intelligence, or for use in targeting suspected insurgents for abduction or assassination. Agents might employ HTS data to design propaganda campaigns that exploit Iraqi or Afghan fears and vulnerabilities, or to co-opt local leaders into a system of indirect rule. Finally, HTS data might help create simulation and modelling programs which could conceivably be used for profiling imagined enemies by means of statistical probability. It is vital that we discuss ethical issues covering the range of possibilities.

As I noted in my introduction, some military analysts draw explicit connections between HTS and CORDS/Phoenix, which used local information to help target suspects for incarceration, interrogation or assassination (Kipp et al. 2006). Phoenix featured a computerized database:

Phoenix was enhanced with the advent of the Viet Cong Infrastructure Information System... [In January 1967] the Combined Intelligence Staff fed the names of 3000 VCI [Viet Cong 'infrastructure', including communist cadres and National Liberation Front members among others] (assembled by hand at area coverage desks) into the IBM 1401 computer at the Combined Intelligence Center's political order of battle section. At that point the era of the computerized blacklist began... VCIIS became the first of a series of computer programs designed to absolve the war effort of human error and war managers of individual responsibility. (Valentine 1990: 258-259)

Phoenix Program personnel collected a wealth of intelligence information, which was then passed on to 'analysts':

Fig. 5 (left). Technicians assemble IBM 1401 computers in Endicott New York circa 1960. As part of the 1960s Phoenix Program, the names of thousands of suspected Viet Cong and National Liberation Front cadres were fed into such a mainframe, which was located at the US Army's Combined Intelligence Center in Vietnam.

Fig. 6 (right). Refugees returning to Dinh Tri hamlet, Binh Dinh province, Vietnam, September 1969. By building rapport with local leaders. CORDS personnel sought to gather intelligence about Viet Cong cadres

Fig. 7 (below right). Psychological operations in Vietnam included propaganda such as this comic book. entitled 'Mr. Ba's Family and the Phoenix Operation which tells the story of a South Vietnamese family that turns in two Communist cadres wanted by the Phoenix Operation For his cooperation, Mr. Ba receives a reward from the South Vietnamese government.

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VCIIS compiled information... on VCI boundaries, locations, structures, strengths, personalities, and activities... [it] included summary data on each recorded VCI in the following categories: name and aliases; whether or not he or she was 'at large': sex. birth date, and place of birth: area of operations: party position; source of information; arrest date; how neutralized; term of sentence; where detained; release date; and other biographical and statistical information, including photographs and fingerprints, if available... Phoenix analysts [were able] instantly to access and cross-reference data, then decide who was to be erased. (ibid.: 259)

As a result, between 1967 and 1972 South Vietnamese officials, US advisors and mercenaries 'erased' more than 26,000 suspected members of the so-called Viet Cong 'infrastructure', including civilians (Valentine 1990) - acts that amounted to war crimes. Nowhere is this mentioned in Kipp's depiction of HTS as 'a CORDS for the 21st century', yet the historical record points to the potential dangers of computerized counterinsurgency databases.

The future of HTS is unclear. In February 2007, the army's Combined Arms Center issued a memo listing changes in military terminology to be adopted in the near future. It recommends that army personnel 'use "civil considerations" [...] not "human terrain" (US Army 2007: 1). It is uncertain whether this will have an effect on HTS, but it may signal awareness of the term's conceptual or public relations shortcomings.

Some are already calling for change. Credible accounts have emerged about difficulties plaguing HTS, including 'recruitment shortfalls', 'haphazard and often pointless' training, and a programme 'nearly paralyzed by organizational problems' (Glenn 2007a). Former HTT member Zenia Helbig has publicly criticized the programme, claiming that during four months of training, there was no discussion about informed consent or the potential harm that might befall Iraqis or Afghans. Furthermore, Helbig claims that 'HTS' greatest problem is its own desperation. The programme is desperate to hire anyone or anything that remotely falls into the category of "academic", "social science", "regional expert", or "PhD", which has often resulted in gross incompetence (Helbig 2007). If such 'desperation' persists, it is conceivable that HTS might eventually wither, though there are indications that BAE Systems and other contractors will soon target students of political science and international relations for recruitment.¹⁷ In the long run, HTS, HTTs, 'reachback research centers' and MAP-HT may turn out to be technological fantasies that were crushed soon after embedded social scientists' boots hit the ground.

In the future, historians may question why a small number of anthropologists - whose progressive 20th-century pred-

ecessors created the modern culture concept, critiqued Western ethnocentrism in its various guises and invented the teach-in - decided to enlist as embedded specialists in an open-ended war of dubious legality. They might wonder why these anthropologists began harvesting data on Iraqis and Afghans as a preferred method of practical 'real-world' engagement. They might ask why, at a time when majorities in the US, Iraq and Afghanistan called for the withdrawal of US troops, this group of anthropologists supported an occupation resulting in hundreds of thousands of civilian deaths. Economic incentives - approximately \$250,000 for a year - and the results of decades of veneration of the military and those who support it - go some way toward explaining these phenomena. Scholars are not immune to nationalist and imperialist appeals in a highly militarized context.

Future historians might also be puzzled about some social scientists' failure to learn lessons from an earlier era: 'When we strip away the terminology of the behavioral sciences, we see revealed, in work such as this, the mentality of the colonial civil servant, persuaded of the benevolence of the mother country and the correctness of its vision of world order, and convinced that he understands the true interests of those backward peoples whose welfare he is to administer' (Chomsky 1969: 41). The fact that some social scientists have received HTS warmly reveals historical amnesia and a profound lack of imagination.

To the extent that HTS uses 'cultural knowledge' to create propaganda campaigns to win "will and legitimacy" fights', it deserves condemnation. To the extent that HTS peddles anthropological techniques and concepts in support of conquest and indirect rule, it deserves rejection. To the extent that HTS might be employed to collect intelligence or target suspected enemies for assassination, the programme deserves elimination – and a period of sober reflection about the situation of American social science today. •

