CITY, VOL. 11, NO. 1, APRIL 2007

Routledge
Taylor & Francis Group

Neo-liberalism on crack

Cities under siege in Iraq

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Neo-liberal reform in the Global South has produced a pattern of immiseration that is characterized by what David Harvey has called accumulation by dispossession, a process that destroys the fixed and human capital of the host country while producing huge profits for outside multinational corporations, while producing 'cities of slums' that become repositories for severely impoverished economically excluded populations. While this neo-liberal degradation of host country economies usually takes a decade or longer, the American occupation of Iraq produced the same immiseration in just three years.

The American military onslaught, combined with the 'shock treatment' of neo-liberal economic measures, reduced the Iraqi economy, once among the most advanced in the non-industrial world, to conditions that rival those of the most degraded nations in the Global South. The initial American invasion damaged the already weakened infrastructure in many, but by no means all, Iraqi cities; while the subsequent fighting substantially extended the devastation. Areas which were not war zones were drawn into the widening circle of degradation as the failures in electricity impacted all regions, and as the destroyed upstream sewage system contaminated drinking water, irrigation and fishing throughout the country. Reconstruction budgets were, even by official estimates, incapable of repairing the damage, and they were made more inadequate by the ongoing war, successive reductions (instead of increases) in the allocations and siphoning off of resources for security expenses.

In a crystalline example of accumulation by dispossession, US reconstruction policy made the potentially temporary devastation of the war permanent by seeking to impose a free trade market system on a socialist economy. The occupation introduced an extreme version of what has become known as economic 'shock treatment', idling state-owned enterprises that accounted for 35 percent of the economy and contracting with multinational firms to demolish functioning infrastructure and replace it with new systems that were incompatible with existing technologies and local expertise. The new construction was sabotaged by the contractors' inexperience with the Iraqi physical and economic environment, by widespread corruption, by cost-plus contracts that incented them to undertake over-ambitious projects that could not be completed, and by the expenses associated with resolving the incompatibilities with in-place facilities. Few projects were completed and those that were completed could not be maintained by Iraqi professionals or technicians, and fell into disrepair.

With the exhaustion of American reconstruction dollars, the foreign contractors disappeared, leaving a deconstructed Iraq populated by cities of slums.

'It is curious to see America, the United States, looking on herself, first, as a sort of natural peacemaker, then as a moral protagonist in this terrible time. No nation is less fitted for this role. For two or more centuries America has marched proudly in

ISSN 1360-4813 print/ISSN 1470-3629 online/07/010021-49 © 2007 Taylor & Francis
DOI: 10.1080/13604810701200730

> the van of human hatred, —making bonfires of human flesh and laughing at them hideously, and making the insulting of millions more than a matter of dislike, — rather a great religious a world war-cry.' (W. E. B. Du Bois, 1919)1

Introduction

During its early days, critics were often heard to say that the Iraq war was 'Vietnam on crack', a comment meant to express the ways in which the war had escalated—and the opposition multiplied—so much more quickly than it did in Vietnam. While this may have been an apt metaphor, it ignored an important difference between the two wars and between the two eras into which they were integrated, a difference that helps to explain some very different dynamics of the two wars.

In 1954, US entry into Vietnam was embedded in a broader policy designed to *prevent social reform*. The explicit policy—containing the Soviet Union and its then ally China—and its less explicit underpinning—the attempt to prevent the spread of socialism into Southeast Asia—was founded upon an effort to maintain the unfettered access of American and European capital to markets throughout the Third World. That is, the opposition to 'Communist Revolution' was, at its heart, an attempt to prevent various countries from enacting social reforms that would institute state-centered economic policies.

By contrast, in 2003, the US entry into Iraq was embedded in a broader policy designed to *introduce social reform*. The goal of regime change in Iraq was founded on the ambition of 'liberalizing' Middle Eastern economies by eliminating the state-centered economy in Iraq (and some of its neighbors, notably Iran). This neo-liberal goal was meant to be achieved by opening up the country to virtually unrestricted investment and trade by multinational corporations (through the specific mechanisms of shuttering state run enterprises, selling them to MNCs, and dismantling tariff and tax protections for domestic business); by weakening labor unions and other organizations that raised wages and working conditions while limiting profits (by outlawing unions in the public sector, by bringing in non-union contractors from outside the country and by employing non-union foreign workers instead of Iraqis); and by removing the price subsidies that placed a modest floor under quality of life of the Iraqi population (including state-provided food baskets for all families and price subsidies for gasoline and other staple products).[2]

This non-military ambition may, at first, appear to be out of character for the American military, but an expansive view of the role of armed forces had, by the time of the invasion, become well integrated into their theory of warfare. As Stephen Graham has commented: 'The need for expeditionary wars to forcibly integrate zones deemed to be "beyond the functioning core" of a globalized world has explicitly emerged from recent geopolitical thinking in the Pentagon.'[3]

These underlying economic ambitions had acquired the name 'neo-liberalism', decades before. The label derived from the effort, spearheaded in the last three decades by a triumvirate of global financial institutions (the World Bank, the International Monetary Fund and the World Trade Organization), to 'liberalize' various economies in the Global South by substituting market mechanisms for state distribution of economic goods and services. Neo-liberal economic policies had been adopted by a large number of countries, particularly in Africa and Latin America, over the past several decades. This substantial history allows us to identify the ways in which the war in Iraq fits into the mold of earlier non-military social reform initiatives undertaken under the neo-liberal banner, and also to see the ways in which the military primacy makes it different from earlier efforts.

Neil Smith (2005) places these policies in the broader arc of American foreign policy

since the American Civil War. America's dramatic entry into the imperialist European club of the late 1800s, heralded by its conquest of key Spanish colonies during the Spanish American war, ushered in what became a century-long campaign to establish what was, at the time, referred to as 'free trade' imperialism. Though the USA did acquire a handful of formal colonies (Puerto Rico, Philippines, Hawaii, etc.) its main thrust was to 'liberalize' the economies of politically independent countries, particularly those that became known after World War II as the Third World. Liberalization, then and now, meant that the economic system would welcome—with as little restriction as could be politically accomplished—the investment of MNCs headquartered in the USA (and—in its more generous moments—other countries of the 'First World'). This investment would (and did) tie these countries' economic fate to the core countries of the world capitalist system, and to create a flow of wealth and resources from the hinterlands into the core (Magdoff, 1969).

The vagaries of world politics and capitalist economics have interrupted, deflected and even frustrated this policy over the many decades; but the core intention has never wavered through regimes of various political complexions—Democrat and Republic, liberal and conservative.

One of Smith's most telling points in support of this thesis is his argument that virtually the entire list of American military interventions—of which there have been more than 100 (Grossman, 2001)—were animated at least in part by this effort to protect or enhance the access of American MNCs to the local economy—for example, in Iran (to prevent the nationalization of oil), Guatemala (to prevent the nationalization of United Fruit's banana holdings) and Vietnam (to prevent the spread of socialism to Southeast Asia). Based on this consistency, then, it should not be surprising that—despite the official concern about WMDs and support for terrorism—the US invasion of Iraq was part of a 'larger project to impose a global capitalism dressed up as liberal democracy' on the Middle East (Smith, 2005, p. 193).

Nor should it be not surprising that economic 'liberalization' was one of the primary programs initiated by the Coalition Provisional Authority (CPA), the administrative apparatus installed by the USA to run Iraq after the overthrow of the Hussein regime. This program was designed to replace the socialist economy instituted by the Baathists, starting in 1958, with a market driven economy that would allow full access for American and other multinational firms. Paul Bremer, who headed the CPA during its one-year existence, told the *Washington Post* that the legal foundations he laid for this transformation were his most important accomplishments:

> 'In an interview last week, Bremer maintained that "Iraq has been fundamentally changed for the better" by the occupation. The CPA, he said, has put Iraq on a path toward a democratic government and an open economy after more than three decades of a brutal socialist dictatorship. Among his biggest accomplishments, he said, were the lowering of Iraq's tax rate, the liberalization of foreign-investment laws and the reduction of import duties.' (Chandrasekaran, June 2004)

Smith's comment about this statement points to its deeper meaning:

> 'Bremer's emphasis on the liberalization of tax, trade, and investment laws over military pacification, political progress, and a rebuilt economy at this crucial moment may have been barefaced, but it should not be dismissed as a mere apologetic smokescreen for the chaos of reconstruction. Bremer's choice actually goes to the heart of the construction effort and, even more, speaks to the larger reasons for the war.… Washington wanted first and foremost to privatize the Iraqi economy.' (Smith, 2005, p. 178)

The Iraq war therefore fitted comfortably into the arc of American foreign policy, and was consistent with the non-military efforts

that had carried neo-liberal reform into Africa, South America and various parts of Asia. Moreover, this decades-long history makes visible both the dynamics and the outcomes of neo-liberal reform, allowing us to better understand the similarities and differences between trajectories in Iraq—enacted in the course of a brutal war—and those in the Global South—which were enacted in a slower and more orderly way through economic reform.

In his recent work, David Harvey has outlined the consistencies that underlie neo-liberal economics across diverse national settings (Harvey, 2003, 2005, 2006). Harvey demonstrates that the theoretically straightforward commitment to privatization of virtually all economic functions and to the resolution of distributional issues through markets is actually fraught with contradictions, once it is translated into the real world. Once these contradictions are scrutinized, we see that the consistent underlying dynamics across the many versions of neo-liberal reform, practiced in many countries on several continents, involve the coordinated redistribution of both power and wealth upward toward the capitalist class, and the increasing globalization of the capitalist class itself. From this process emerges 'one persistent fact': 'the universal tendency to increase social inequality and to expose the least fortunate elements in any society—be it Indonesia, Mexico, or Britain—to the chill winds of austerity and the dull fate of increasing marginalization' (2005, p. 118).

As Harvey demonstrates, neo-liberalism's record is 'nothing short of dismal' when it comes to sustained economic development; at its most successful it generates 'spurts of growth followed by economic collapse' (Harvey, 2005, p. 154). But even during its failures, it delivers a larger share of the wealth and power to the captains of finance, often those located far away from the host country in the capitalist core. Its 'main substantive achievement … has been to redistribute, rather than to generate, wealth and income' (2005, p. 159). And even during its successes, it pushes workers further into 'a world of flexible labour markets and short-term contracts, chronic job insecurities, lost social protections, and often debilitating labor, amongst the wreckage of collective institutions that once gave them a modicum of dignity and support' (2005, p. 168).

Harvey calls the process that produces these dismal results 'accumulation by dispossession' (Harvey, 2003, pp. 137–182 (Chapter 4)), a phenomenon that is central to the dynamics unleashed by the American invasion of Iraq. Fundamentally, it involves the transfer of public property and enterprises to private companies at prices far below their value, with a collateral degradation of the wages and benefits of the workers employed in the industries associated with the transferred property. The new owners of these transferred assets benefit in two important ways: the low (sometimes nil) prices paid represent a small initial investment which can be recouped in even the most competitive or depressed market climate; and/or the newly lowered cost of labor vastly increases the margin between costs and returns from sales. These mechanisms are particularly useful in circumstances like those that have obtained during the last 30 years or so, when a crisis of 'overaccumulation' has left large firms with few investment opportunities.

Since overaccumulation became a key problem in the 1970s, the most common form of accumulation by dispossession has been 'regional crises and highly localized place-based devaluations.… Valuable assets are thrown out of circulation and devalued. They lie fallow and dormant until surplus capital seizes upon them to breath new life into capital accumulation' (Harvey, 2003, p. 151). It is this process that unravels the complicated, but relentless, impact of the Iraq war on the Iraqi economy, and on the American presence there. Both the destruction of Iraqi infrastructure and the transfer of assets from the public domain to American multinational corporations contribute to a

process that simultaneously nurtures MNCs and immiserates all but the most privileged of the Iraqi population.

Mike Davis (2004, 2006), one of the most astute and informed analysts of this process, offered a vivid description of the consequences of neo-liberal reforms for the collective fate of cities:

> 'Urbanization [in the Global South] … has been radically decoupled from industrialization, even from development per se. Some would argue that this is an expression of an inexorable trend: the inherent tendency of silicon capitalism to delink the growth of production from that of employment. But in sub-Saharan Africa, Latin America, the Middle East and parts of Asia, urbanization-without-growth is more obviously the legacy of a global political conjuncture—the debt crisis of the late 1970s and subsequent IMF-led restructuring of Third World economies in the 1980s—than an iron law of advancing technology. Third World urbanization, moreover, continued its breakneck pace (3.8 per cent per annum from 1960–93) through the locust years of the 1980s and early 1990s in spite of falling real wages, soaring prices and skyrocketing urban unemployment.'[4]

Davis then offered a more detailed description of these new slum cities:

> 'This "perverse" urban boom contradicted orthodox economic models which predicted that the negative feedback of urban recession should slow or even reverse migration from the countryside. The African case was particularly paradoxical. How could cities in Côte d'Ivoire, Tanzania, Gabon and elsewhere—whose economies were contracting by 2 to 5 per cent per year—still sustain population growth of 5 to 8 per cent per annum?[5] Part of the secret, of course, was that IMF- (and now WTO-) enforced policies of agricultural deregulation and "de-peasantization" were accelerating the exodus of surplus rural labour to urban slums even as cities ceased to be job machines. Urban population growth in spite of stagnant or negative urban economic growth is the extreme face of what some researchers have labelled "over-urbanization".[6] It is just one of the several unexpected tracks down which a neoliberal world order has shunted millennial urbanization.…
>
> The global forces "pushing" people from the countryside—mechanization in Java and India, food imports in Mexico, Haiti and Kenya, civil war and drought throughout Africa, and everywhere the consolidation of small into large holdings and the competition of industrial-scale agribusiness—seem to sustain urbanization even when the "pull" of the city is drastically weakened by debt and depression.[7] At the same time, rapid urban growth in the context of structural adjustment, currency devaluation and state retrenchment has been an inevitable recipe for the mass production of slums. Much of the urban world, as a result, is rushing backwards to the age of Dickens.' (Davis, 2004)

One implicit element in Davis' description of these slum cities is the decades-long process required to produce them. It is here that the war in Iraq represents a departure from historical neo-liberal processes: in a scant three years after the invasion, the destructive power of the American army interacted with the relentless application of neo-liberal economic principles to accelerate the slumification process dramatically. Moreover, Iraq, unlike most of the countries that Davis analyzes, began the process with at least a quasi-industrial economy, anchored by a weakened, but still formidable infrastructure and a number of viable manufacturing districts. This foundation should have been capable—with the appropriate exploitation of Iraq's oil resources—of supporting a modern economy. Instead, the war has produced dramatic economic decline. It therefore merits careful scrutiny to understand how the integration of traditional military destruction into neo-liberal economic transformation has produced a slumification process that is a notable addition to the neo-liberal repertoire.

Neo-liberal reforms and the origins of the Iraqi insurrection

The initial focus of popular and scholarly attention on the military aspects of the American invasion of Iraq, though understandable, nevertheless diverted attention from a consideration of its impact on the daily dynamics of Iraqi life. Once we shift our attention to these non-military subjects, we are struck by the speed with which the occupation introduced and attempted to consolidate a program of neo-liberal reform that had taken decades to institute in other countries. Moreover, this attempted transformation had a devastating impact on Iraqi society: within only three years the restructuring of power and wealth that Harvey traces in other countries over decades, had already made its appearance. And, to borrow Davis's phrase, Iraqi cities were—by mid-2006—'rushing backwards to the age of Dickens'.

That is, by 2006, most Iraqi cities had lost their historic economic centers of gravity, had become dependent on foreign capital for both products and services, were denuded of jobs that paid a living wage, and were populated by an economically marginal population mired in a downward spiral of poverty and desperation. If the military aspects of the Iraq war could be called 'Vietnam on crack', then the economic aspects could be called 'neo-liberalism on crack'.

To see how this occurred, we must take a closer look at the dynamics of the war and the collateral process of 'reconstruction' instituted by the American occupation in Iraq.

The neo-liberal project in Iraq

On the third anniversary of the invasion of Iraq, when American newspapers and TV news were filled with answers to the question of 'what went wrong' in Iraq, we can summarize the consensus answer in the following way:[8] The invasion was initially successful, but the plan for the peace was faulty. Bush administration officials misestimated the amount of resistance they would find in the wake of Baghdad's fall, and did not deploy sufficient soldiers to handle the initial resistance mounted by remnants of the Hussein regime. This blunder allowed what was at best a modest insurgency[9] to grow to formidable proportions, at which point the occupation officials were confronted with consequences of second blunder: the dismantling the Iraqi army, which otherwise could have been deployed to suppress the rebellion.

The bottom line? General Eric Shinseki was right when he recommended that the U.S. should deploy several hundred thousand troops to lock down the country. Had this been done, the rebellion would have been quickly quelled, and the U.S. occupation would have looked more like those of Japan and Germany after World War II.[10]

The problem with this portrait is that it ignores the fundamental cause of the war-after-the-war: the American attempt to neo-liberalize Iraq was at the center of what became the resistance.

The protracted war in Iraq did not begin with the US invasion or with the overthrow of the Saddam Hussein regime. While there was considerable chaos and violence after the fall of Baghdad, armed engagements did not dominate daily life during the summer of 2003, as the occupation army searched for and apprehended the remnants of the Saddamist regime. From the viewpoint of traditional military theory, one would have expected this modest resistance to disappear as the American military and its coalition allies firmed up their control of the country.

Instead, a reverse process occurred. By the fall of 2003 a coherent armed opposition had materialized, and by the spring of 2004, several months after the capture of Saddam Hussein, it had begun to cohere into a systematic armed resistance (Schwartz, January 2005b). By mid-2004, the number of

military engagements had tripled from less than 20 the previous summer to about 50 per day, on its way to a 70 per day average in January 2006 (Brookings Institution, May 2006, p. 22).

The slow build-up of the war calls for an analysis that identifies the complex factors that energized the evolution of social chaos into a guerrilla war aimed at expelling the US army from Iraq. The starting place for understanding this process is to look at the policies adopted by the CPA, the American-led government that was installed as a successor regime to the ousted Saddamist government.[11] The American victors announced that a sweeping reform of Iraqi society would take place. The only part of this program that is still mentioned today—the now widely regretted dissolution of the Iraqi military and police—was but one aspect of a far larger effort to dismantle the entire Baathist state apparatus, most notably the government-owned enterprises that constituted a little under 40 percent of the Iraqi economy; and the removal of various food, product and fuel subsidies that had guaranteed low-income Iraqis basic staples, even when they had no gainful employment (Docena, March 2006).

This neo-liberal 'shock treatment' was adapted from programs undertaken by the International Monetary Fund (IMF) and the World Bank in the 1990s, including those that immiserated Russia after the USSR collapsed and that helped to bankrupt Argentina.[12] Bearing Point, the Virginia-based corporation that was paid $250 million to plan and implement the overall economic plan, called it a 'transition from a … centrally planned economy to a market economy'. Noting that existing Iraqi law was 'woefully deficient in terms of establishing a market-friendly legal and regulatory environment', it proposed to radically transform existing practice:

> 'It should be clearly understood that the efforts undertaken will be designed to establish the basic legal framework for a functioning market economy; taking appropriate advantage of the unique opportunity for rapid progress in this area presented by the current configuration of political circumstances … Reforms are envisioned in the areas of fiscal reform, financial sector reform, trade, legal and regulatory, and privatization.' (quoted in Juhasz, 2004)

The full scope of their ambition was specified by their lists of areas in which market forces would be introduced: from 'major utilities such as gas, oil, water, and power' to virtually all financial operations, including 'asset sales, concessions, leases and management contracts, especially those in the oil and supporting industries' (Juhasz, 2004).

By the end of 2003, the CPA had promulgated all manner of laws designed to implement Bearing Point's ambitious plan. James McPherson, a key player in designing the details of the program, told the Senate that the newly promulgated plan laid the 'foundation for a revolutionized economy' that would

> 'challenge the economic policies and the politics of the whole region.… All restrictions were also taken off foreign corporations intent on buying full control of Iraqi enterprises; nor were demands to be made of those companies to reinvest any percentage of profits in Iraq.' (McPherson, 2003)

At the same time, state-owned enterprises were to be demobilized, prevented from participating either in repairing facilities damaged during the invasion or in any of the initially ambitious reconstruction projects the USA commissioned. This policy was so strict that state-owned enterprises with specific expertise in Iraqi electrical, sanitation and water purification systems were forbidden from obtaining subcontracts from the MNCs placed in charge of rejuvenating the country's infrastructure. Plans also excluded the state-owned cement and fertilizer plants, phosphate and sulfur mines, and pharmaceutical factories from functioning until they were sold to private owners.

Thomas Foley, who was placed in charge of 'private sector development' for the occupation, set a plan to sell off 150 of the 200 state-owned enterprises, including 'cement companies, fertilizer operations, a phosphate mining operation, sulfur mining and extraction businesses, pharmaceutical companies, and the airline and automobile tire makers' (Chatterjee, 2004, p. 180). When the sell off plans foundered for lack of customers willing to brave the security risks, the factories remained shuttered (Chatterjee, 2004, pp. 175–182; Juhasz, 2004; Cloud, April 2006).

In one crystalline example of the policy in action, a state-owned tractor factory outside of Baghdad, which had employed 6000 workers before the occupation, stood idle and intact in March of 2006, fully three years after the occupation began, waiting for a private sector customer to purchase and reactivate it (Cloud, April 2006). In another, the aerial spraying of date palms, a Baathist government service, was simply discontinued, resulting in infestation that crippled local growers of 'the once lucrative crop'. After three years, when no private sector business appeared to take its place, the US military announced that it would take on the job, because the economic impact of the failure was 'fueling the insurgency' (Cloud, April 2006).

This policy of idling government enterprises unless they could be transferred to private ownership added measurably to the hardship of Iraqi citizens, since their products and services were, in many cases, not replaced by local or international private enterprise. This was a key factor in the 'shock treatment' aspect of the program. But the determination of the occupation authorities to transform the Iraqi economy depended on this sort of rigorous discipline, since allowing the government enterprises to participate in initial reconstruction activities would have integrated the firms into the new economy, and made it all-the-more difficult to root them out later. Occupation authorities in many cases went to the extreme lengths of paying the employees of these non-functioning firms, to forestall the discontent that layoffs would have generated, while still prohibiting any productive work.

A second prong of the neo-liberalization was crystallized in Bremer's 'Order 39', which removed virtually all restrictions on foreign investment and marketing within the country (Juhasz, 2004; Klein, 2004). This resulted in an immediate surge of sales to the Iraqi middle class of previously unobtainable goods like air conditioners, cell phones and all manner of electronic devices (Andrews, June 2003). This was interpreted by many as an early sign of coming prosperity—a demonstration of the power of the 'open economy', once it was freed from the 'undue concentration of economic power' represented by state ownership of major industry (McPherson, 2003).

As it happened, though, this surge did not last past the winter of 2003. The problem was that the CPA-induced economic 'opening' to multinational competition bankrupted a substantial proportion of Iraqi-owned local enterprises (Andrews, June 2003). Owner-operated shops found themselves competing with multinationals offering drastically lower-priced goods (either because their cost was actually lower or because they sold at a loss to capture the market). A depression swept through small business in Iraq, leaving neighborhoods without their normal complement of shops and without the income that these shops plowed back into communities (Klein, September 2004).

This depression in local business was compounded by the demobilization of the army and the sidelining of state enterprises, which produced an almost immediate unemployment crisis. Though many state enterprises continued to pay demobilized employees half their wages (Juhasz, 2004) and the CPA belatedly decided to pay Saddam's former soldiers, this money did not regularly reach the targeted groups. The fragmentary administration set up by the occupation was inefficient at delivering any services, including paychecks, and significant

sums were evidently simply gobbled up by increasingly corrupt remnants of the Baathist administrative apparatus. As a result, millions of unemployed workers and soldiers, lacking the money to feed their families, also lacked the money to support local merchants.

These depressed neighborhoods became incubators for ferocious criminal gangs, who sought to redress their own economic hardship by looting shuttered factories, public buildings and private dwellings of anything that might yield a return on the black (or export) market. Looting, which began with the fall of the government, became a permanent feature of Iraqi urban life, since no police force arose in the wake of the US dismantling of the Saddamist regime. As the time passed without the establishment of effective law enforcement, criminality became organized and systematic, targeting professionals and shopkeepers who had substantial assets or steady incomes; with kidnapping becoming a regular fact of life for prosperous Iraqis.

An additional setback was the almost immediate failure of the high profile reconstruction program promised by the USA just after the invasion. After Congress allocated almost $20 billion in supplementary funds to the project, the promises of expanding electrical production, of rapid repair of highways and sewage systems, and of a thorough rehabilitation of hospitals and schools, set in motion expectations among Iraqis that economic recovery might be imminent. Instead, the high visibility promises turned quickly into high visibility failures.[13] The hours of electrical service declined rather than increased in Baghdad, creating all manner of problems for residents (who could not store perishable food) and businesses (which could not engage in many manufacturing or commercial activities). The failing sewage system created health hazards and a host of new medical problems, and the failure to rehabilitate schools left parents with school-age children to take care of during what should have been the school day. One Baghdad resident told *Democracy Now* a story about the repair of schools that suggests the role played by the failure of reconstruction in roiling discontent inside Iraq:

> 'We have heard a lot of stories about reconstruction during the six months or the first year after the war. And we were living inside Baghdad and watching for them, as an example, for the campaign of maintenance of the schools. We have heard about [the] huge budget for the contractors from Bechtel or other American companies. But the reality on the ground was that … they paid it [to] subcontractors [who paid] subcontractors; then—a subcontractor, an Iraqi one, he got it for $2,000 for each school just to put paint and to maintain the broken glass. This is the only thing they have done. But maybe they are sending you … the story that we put new furniture and we put the new computers and everything was fancy. No, this is not the truth.'[14]

As this crisis deepened, MNCs found they had sold just about all the appliances the market could bear, and were no longer making sufficient profits to continue their marketing efforts in much of Iraq. As the resistance grew, the commercial conditions became even less hospitable, so they simply withdrew from now-unprofitable local markets, leaving communities with the empty shops of bankrupt local merchants and bereft of needed products and services. Residents who still had incomes found it increasingly difficult to obtain needed products. A reverse multiplier effect began to take hold as Iraqis who remained prosperous were forced to shop, work or live outside their former communities, only depleting and depressing them further. Unemployment rates quickly exceeded 25 percent in many communities and continued to climb, reaching 70 percent in many cities over the succeeding months and years. By 2006, when the occupation began its fourth year, nationwide unemployment estimates ranged from a depression-level 25 percent to a staggering 60 percent,

depending on the source consulted and the method of calculation.[15]

A response of savage repression

This economic debacle affected different parts of the country with differing degrees of severity. Baghdad, the capital, contained a large proportion of the government apparatus and the commerce of the country; so it was hit with catastrophic force (Al-Ali, 2004). Previously favored Sunni cities outside Baghdad, where the largest proportion of state enterprises were located and government employees lived, were similarly devastated.[16] The Shia cities in the South were strongly affected, but not as profoundly as the Sunni cities.

After 12 years of post-Gulf-War-I autonomy under the protection of the Anglo-American 'no-fly zone', Iraqi Kurdistan—to the north and west of Baghdad—was largely shielded from the economic destruction. In effect, their isolation from the Iraqi economy insulated the Kurds from the 'shock treatment' wrought by the US occupation.

Naturally, then, the discontent was most ferocious in Sunni areas, substantial in Shia areas and relatively mild in Kurdistan. By the fall of 2003, as anger mounted, so did the protests, with the largest and most insistent coming from Sunni cities and the Sunni areas of Baghdad. These protests were made more pronounced by the residual loyalty to the Saddam regime found in many Sunni communities.

At first, most of the protests were peaceful, focusing either on local economic issues or on general conditions that were worsening, or not improving, after weeks and then months of occupation. Typically, people demanded services and jobs from the CPA. The run-up to the ferocious first battle of Falluja in April 2004 actually began with a protest demonstration a full year earlier, only weeks after the fall of the Hussein regime. When 200 protesters demanded that the US military vacate a local school so it could be re-opened, American troops responded to what they believed was rifle fire from the crowd with overwhelming force, killing 13 and wounding 75 Iraqis (Blair, April 2003).

This incident is a microcosm of the combination of material oppression and ferocious repression that provoked what would become an ongoing rebellion. This cause and effect was expressed by two residents of Falluja to *Reuters* reporter Edmund Blair shortly after the incident.

> '"They are stealing our oil and they are slaughtering our people," said Shuker Abdullah Hamid, a cousin of one of the victims, 47-year-old Tuamer Abdel Hamid.
>
> "Now, all preachers of Falluja mosques and all youths … are organizing martyr operations against the American occupiers," said a man cloaked in white, using the term often used to describe suicide attacks in the Israeli–Palestinian conflict.' (Blair, April 2003)

In 2003, before the resistance matured into an organized armed rebellion, the occupation's response to protests was forceful repression. Top officials of the CPA and the US military command considered even peaceful demonstrations tangible signs of ongoing Baathist attempts to organize their return to power. They therefore applied the occupation's iron heel, on the theory that forceful suppression would soon defeat or demoralize any 'dead-enders' intent on restoring the old regime.

Protests were therefore met with arrests, beatings, and—in any circumstances deemed dangerous to US troops—overwhelming and often lethal military force. Home invasions of people suspected of anti-occupation attitudes or activities became commonplace, resulting in thousands of arrests and numerous firefights. Detention and torture in Abu Ghraib and other American-controlled prisons were just one facet of this larger strategy—designed to get information about any incipient resistance, and therefore facilitate harsh, often deadly, strikes. In general,

the Iraqi population came to understand that dissent of whatever sort would be met by savage repression.

This policy might have worked if, as Bush administration officials regularly claimed, the resistance had indeed been nothing but remnants of the Saddam regime, thirsting for a return to power. It might even have worked—or at least worked somewhat better—if the growing resistance had rested only on the anger people felt about the occupation of their homeland by an alien army. In these circumstances, protestors might have decided to bide their time in the face of overwhelming demonstrations of force, waiting either for a voluntary withdrawal or decrease in the repression once the occupation felt secure in its rule. In any case, they might have felt that the injuries suffered from resistance were more grievous than the injuries of domination.

In the context of deepening economic disaster, however, people had little choice but to protest, since they saw that the status quo would yield a worse situation tomorrow than today, and still worse in the coming months. In the context of this growing desperation, repression was worse than unworkable; it inflamed the roiling discontent generated by the endangered livelihoods of the Iraqi population. In such circumstances, each act of repression added the provocation of brutality to the economic crimes that triggered the protests to begin with. And each act of repression convinced more Iraqis that peaceful protest would not work; that, if they were going to prevent the further decline in their lives and those of their families, a more aggressive, belligerent approach would be needed.

Ignoring eternal verities

In this context, the American policy of repression backfired, stoking an ever angrier, more popular, more widespread and better equipped resistance. Eventually, in both Sunni and Shia areas, major uprisings occurred and, in the Sunni cities, these developed into more-or-less continuous warfare that, by November 2005, resulted in about 700 small-scale military engagements per week (Murtha, 2005).

Could the USA have suppressed even this economically driven rebellion, had it flooded the country with American troops (as General Shinseki recommended) and kept Saddam's army more or less intact, using it—as Saddam had—to suppress growing discontent? Perhaps, but as long as American administrators were intent on privatizing the country, the discontent would have continued to mount. It is by no means clear that the Iraqi police or army would have been willing to attempt the forcible repression of the Iraqi population, particularly since the spreading economic discontent would impact on their own communities and families. (Saddam's system rested on favoritism toward the communities that supplied the forces of law and order.)

Moreover, retaining an army after overthrowing a government and rearranging its economic foundations is quite different from retaining one after a *coup d'état* that changes little except the leadership. CPA officials rightly feared major resistance from all the forces that were served by the old system, including the military, which in the Iraqi case benefited from government-controlled enterprises as much as any other part of the establishment.

Certainly, an alien army entered Iraq, destroyed that country's sovereignty and stoked nationalist resentments (Schwartz, 9 March 2006). The unrelenting brutality visited upon any signs of resistance further angered the Iraqi population. But neither of these provocations, alone or together, could have triggered the ferocious resistance that arose so quickly and decisively in all areas of the country. The willingness to fight and die requires something more than insult and injury: it is almost always animated by the conviction that otherwise things will only get worse. And it was the downward trajectory of the Iraqi economy, the rising levels of

unemployment as government and private businesses were shuttered, the decreasing wages as neo-liberal inflation took hold, the ongoing failure of the agricultural economy, the sweep of communicable disease borne by increasingly contaminated water and the steadily fading hope of a better day for the next generation that guaranteed a mounting resistance.

What the war does to the cities

Neo-liberal economic reforms have created the 21st-century slum city, with its extensive shanty-towns, degraded public services and hyper unemployment. Small pockets of the privileged maintain a lifestyle that resembles the ideal of capitalist prosperity, but an increasing proportion are deprived of the accoutrements of modern life: reliable electricity, clean water for drinking and for bathing, a livable diet, a habitable dwelling and a viable connection to the economic life of the nation. In Iraq, even during the hellish combination of Saddamist rule and UN sanctions, most Iraqis kept this connection, albeit in constantly degrading circumstances. With the arrival of the Americans, conditions in the cities turned more steeply downward. And with the rise of the post-invasion war, they went into free fall.

The descent into economic purgatory was most rapid for cities at the center of the fighting. It was there that the American tanks, artillery and—most of all—air strikes, with some assistance from the increasingly well-armed resistance and the small but active terrorist elements, reduced all or parts of viable cities into wastelands.

'Shock and awe' and the assault on urban infrastructure

The image of war-related devastation is a common one, and therefore hardly surprising. But since the first Gulf War in 1991, this devastation has become considerably more self-conscious, placing the targeting of infrastructure at the center of military strategy, and viewing it as the most efficient way of quickly bringing the enemy to heel. Graham calls this strategy 'de-modernization':

> 'The forced de-modernization of cities and urban societies through state infrastructural warfare is emerging as a central component of contemporary military strategy.… Vast military research and development efforts are fuelling a widening range of "hard" and "soft" anti-infrastructural weapons … carefully designed to destroy, or disrupt, the multiple networked infrastructures that together allow cities within modern "network societies" to function.' (Graham, 2005, p. 169)

This focus on infrastructure would appear to violate established international law, but, as Graham points out, the blending of military and civilian use in most infrastructure—known in military jargon as 'dual use' systems (e.g. power lines, roads, multi-tenant office buildings)—provides a way of sidestepping international law while offering a (technically) legal opportunity to attack the 'will to fight' of the civilian population. Graham quotes Lt. Col. Kenneth Rizer, an air-power strategist writing in the *Air and Space Power Chronicles*, on how the military views this morally ambiguous strategy:

> 'The US Air Force perspective is that when attacking power sources, transportation, networks, and telecommunications systems, distinguishing between the military and civilian aspects of these facilities is virtually impossible.… Since these targets remain critical military nodes … they are viewed as legitimate military targets.…
>
> By declaring dual-use targets legitimate military objectives, the Air Force can directly target civilian morale. In sum, so long as the Air Force includes civilian morale as a legitimate military target, it will aggressively maintain a right to attack dual-use targets.' (Graham, 2005, pp. 176–177)[17]

Harlan K. Ullman, a US Navy commander and an influential National War College professor who developed the theory of 'Shock and Awe',[18] saw these infrastructural attacks as the key to military victory, based on their ability to 'control the adversary's will'. These attacks, he declared, could 'induce sufficient Shock and Awe to render the adversary impotent'.[19]

When the concept of 'shock and awe' became current during the run-up to the Iraq invasion, Ullman was asked by CBS correspondent David Martin to portray its projected role in the imminent war. He emphasized both the attacks on infrastructure and the breaking of Iraqi will, while comparing the strategy to the attack on Hiroshima:

> '"We want them to quit. We want them not to fight," Ullman told CBS, explaining that the concept relied on a "simultaneous effect, rather like the nuclear weapons at Hiroshima, not taking days or weeks but in minutes.... You're sitting in Baghdad, and all of a sudden, you're the general and 30 of your division headquarters have been wiped out. You also take the city down. By that, I mean you get rid of their power, water. In two, three, four, five days they are physically, emotionally, and psychologically exhausted."'[20]

As Eduardo Mendieta points out, 'shock and awe' represents 'a complete undifferentiation between military and civilian space and infrastructure. In this new form of total war, the total environment (seas, rivers, air space, land, cities, deserts, etc.) of an opponent becomes viable military targets.'[21]

Air power strategist Rizer, responding to the moral implications of the strategy, reported on a humanitarian rationale for its application articulated by Air Force officers, who emphasized that this methodology could 'undermine civilian morale without having intent to injure, kill or destroy civilian lives'.[22] But Rizer also noted that this posture ignored the long-term consequences of such attacks (Rizer, 2001, p. 11). As Ruth Blakeley has argued, it is really a 'bomb now, die later' policy, since the degraded infrastructure becomes the incubator for a host of life-threatening conditions:

> 'The insidious effects of destroying the water supply, sewage system, agriculture, food distribution, electricity, fuel systems and the economic base for an entire country are not obvious until starvation and disease create a humanitarian crisis that cannot be ignored. In fact, far from sparing the innocent, this deliberate strategy disproportionately kills the very young, the very old, and the very weak.' (Blakeley, 2003; quoted in Graham, 2005, p. 174)

These health consequences are only one of the long-term extensions of this new military policy. Viewed from the perspective of Mike Davis's analysis of the 21st-century city, we see that it works to reduce an economically viable city into the neo-liberal condition of economic marginality. Hence, unless timely infrastructural reconstruction occurs, the new American warfare relegates its targets to slum city status.

Ironically, the Iraq war did not, at first, feature the sort of anti-infrastructural attack that Ullman advocated in his 'Shock and Awe' vision, and which was mounted in the Gulf War in 1991.[23] Thus, whereas the first Gulf War created electrical blackouts across the country; after the 'shock and awe' campaign at the start of the Iraq war 'the electricity in Baghdad was still on' (Correll, November 2003). While there was extensive damage to transportation, electrical industry, sewage and communication, it was not a consequence of direct targeting and therefore fell into the category of collateral damage, as this USGAO on water treatment damage indicates:

> 'Operation Iraqi Freedom largely spared water and wastewater treatment plants; however water networks were seriously damaged. Baghdad's water network in particular was subject to severe bomb damage.' (USGAO, September 2005, p. 5.5)

Thus, the USA had spared the key plants during the initial invasion, and the water network damage was an unintentional consequence of attacks on highways and roads that sat above the sewage and water pipes.

This restraint triggered a lively debate within the Defense establishment. On the one side, Deputy Secretary of Defense Paul Wolfowitz lauded the military's policy on CBS news: 'We never targeted infrastructure. We've gone to great lengths to avoid it, in fact, in contrast to 1991, when there was some deliberate targeting of those functions that had both a military and a civilian application' (quoted in Correll, November 2003). But others, including Ullman, derided this policy: 'What they announced at the beginning of the war as Shock and Awe seems to me was largely PR.… It did not bring the great Shock and Awe that we had envisaged.'[24] Speaking to *Air Force Magazine* reporter John T. Correll, Ullman outlined all the ways in which it failed to meet the goals of his strategy. 'Among other differences, Ullman called for attacking everything—including the power and water supply—to stun and intimidate the enemy' (Correll, November 2003).

The deconstruction of Falluja

This issue about early restraint became moot when the insurgency blossomed into a full scale war. In battles concentrated on specific cities that became centers of Iraqi resistance, American military strategy more closely conformed to Ullman's vision. The poster-child for this strategy, including 'bomb now, die later', attacks on infrastructure and the effort to undermine 'civilian morale', was the second battle of Falluja.[25]

In November 2004, after three weeks of 'precision' bombing, 10,000 American soldiers and 2000 Iraqi national guards marched into Falluja. By early December, the city was gutted. Erik Eckholm of the *New York Times* described it as 'a desolate world of skeletal buildings, tank-blasted homes, weeping power lines and severed palm trees' (January 2005). At least a quarter of its homes were destroyed, and most of the others were substantially damaged. Blown out windows, wrecked furniture, three-foot blast holes in walls and disintegrated doors demonstrated that American troops had relentlessly applied what they jokingly called the 'FISH' strategy (Fighting in Someone's House), which involved 'throwing a hand grenade into each room before checking it for unfriendlies'. Since (in the words of an American commander) 'each and every house' was searched, very few remained livable (Sample, November 2004).

The civilians who stayed in the city during the fighting found themselves in a kill-anything-that-moves free-fire zone. When the first medical teams arrived in January 2005 (they had been forbidden from entering the city during the clearing operation) they collected more than 700 unburied and rotting bodies (reputedly including those of 550 women and children) in only one-third of the city; and these didn't include the dead already buried during the battle or hidden under the debris (IRIN, January 2005). Al Jazeera commented, 'the smell of corpses inside charred buildings pervades the atmosphere' (January 2005).

But what of those who survived? More than 200,000 residents were estimated to have fled the battle, many without even a change of clothes, just as the Iraqi winter set in. The lucky ones crowded into the homes of friends and relatives in other cities, sometimes as many as 30 people to a small apartment. The unlucky ones created ad hoc refugee camps and shanty towns virtually anywhere they could squat, mostly without any facilities at all. One family moved into the bumper-car arena of an abandoned amusement park (Fadhil, January 2005). Independent journalist Dahr Jamail reported that the daily life of these refugees consisted of 'searching for food, medical attention, warmth, and clean water' (Jamail, November 2004). One refugee told Jamail, 'We are living like dogs.'

We can see, then, in an instant of history, Falluja was transported forward into neo-liberal hell. A town whose economy rested on its reputation as the 'City of Mosques' where great shish kebab could be purchased at hospitable restaurants had no resources with which to rebuild, and a population which had been dispersed. A city previously able to house, feed and employ its residents was transformed into a political economic basket case, with multitudes of homeless, no facilities and no medical care.

Derrick Anthony, a 21-year-old Navy Corpsman surveyed the desolate Falluja landscape and commented, 'It's kind of bad we destroyed everything, but at least we gave them a chance for a new start' (Perry, January 2005). In fact, Anthony was repeating what Colonel John R. Ballard, one of the reconstruction planners, had told the *New York Times*: 'The best place to bring a model town into place is Falluja' (Worth, December 2004). Even before the attack, the USA promised Falluja would become a showcase for the rest of the country to admire and emulate—'a feat of social and physical engineering … intended to transform a bastion of militant anti-Americanism into a benevolent and functional metropolis' (Worth, December 2004).

This vision, however, was never enacted. In the first couple of months after the conquest, the only new construction in the city consisted of a series of checkpoints (where soldiers recorded the fingerprints and retina scans of returning residents), and the newly bulldozed main streets (whose use was restricted to US military vehicles). This work prefigured the establishment of the tightest security system of any city in Iraq, before or after the fall of Saddam Hussein, a police-state approach that reflected what Charles Hess, the Director of the Iraq Project and Contracting Office and the man in charge of the city's reconstruction, called a 'near term … focus on operational security measures' (Sample, December 2004).[26]

But the deepest tragedy lay not in the 'near term', but in the long term, as the promised reconstruction failed to get started and was later cancelled. The monetary commitment cited by US officials escalated from a pre-attack $50 million to an early January 2005 estimate of $230 million. But this figure, which Director Hess claimed to be adequate for the job (Hess, December 2004), was actually a fraction of what would be needed to recreate a modestly working city and a minuscule proportion of the total required to create 'a benevolent and functional metropolis'.

The inadequacy of the allocation[27] can be judged by considering the estimate that the repair of Falluja's sewers and treatment plants would in itself have exhausted the entire $230 million. The electrical system, which needed to be 'ripped out and rebuilt from scratch' (Worth, December 2004), would have cost at least as much as the sewers. Housing repair, considering damage to most of the 50,000 homes, could not have been less than several hundred million dollars, while repair of commercial establishments would have added perhaps another $100 million. Rejuvenating the medical system, rebuilding the schools, and clearing and rebuilding the streets, would likely have claimed at least $300 million. And recall that Falluja was known as the 'city of mosques', and that many of the mosques endured tens of millions of dollars in damage during the fighting. Taken as a whole, the reality on the ground in Falluja made the $230 million in promised funds an almost insulting underestimate of the damage done.

But it would not be long before injury was added to the insult: within six months, it emerged that the USA would not deliver even the modest sums it promised. The new laissez-faire attitude was made official when Deputy Secretary of State Robert B. Zoellick visited the city, and was asked by various local leaders to 'get involved' and to 'start reconstruction on a big scale'. Zoellick replied that 'we can help', but 'to bring a city back to life, it has to be done by the people of the city' (Brinkley, April 2005).[28]

The substructure of this policy was that Falluja, like the rest of Iraq, was expected to finance its reconstruction through private investment. That is, reconstruction funds would arrive when and if profitable opportunities made it attractive to domestic and international investors. The magic of the neo-liberal market would decide whether and when Falluja would be economically revived. The USA accepted as its obligation the task of removing the threat of insurgency and thus create a favorable investment climate; and the citizens of Falluja could do their part by refusing to support the sort of protest that had brought about the destruction of the city. After that, if the 'City of Mosques' was as attractive economically as it claimed, then private capital would flood into the city and create 'a benevolent and functioning metropolis'.

By summer of 2005, the only ongoing projects in Falluja were the draconian measures adopted to prevent the revival of the resistance among the sullen, demoralized and economically disconnected citizens of the city. There were the two checkpoints through which all traffic into and out of the city was funneled (replete with multi-hour waits, retinal scans and obtrusive inspections fraught with the threat of violence and arrest). And there were the thousands of American soldiers (augmented by police recruited from among the most angry and vindictive Shias, seeking revenge for decades of oppression by the Baathist regime) patrolling all parts of the city day and night, armed with rules of engagement that called for maximum firepower in response to minimal provocation (Jamail, 24 November 2005). As Major Francis Piccoli, a spokesman for the 1st Marine Expeditionary Force that established the system of control, explained to Associated Press reporter Katarina Kratovac: 'Some may see this as a "Big Brother is watching over you" experiment, but in reality it's simply a security measure to keep the insurgents from coming back' (Kratovac, December 2004).

Even the resilient Fallujans were staggered by the weight of the occupation.[29] Eighteen months after the American conquest, the city remained a virtual prison camp, with access so limited that normal economic life was impossible. After promising meager amounts of $100 million in reconstruction funds and $180 million in housing compensation, the Iraqi government diverted between 25 and 30 percent to security expenses, while 'even more has reportedly been siphoned off by corruption and overcharging by contractors' (Jamail and Fadhil, 25 June 2006). A spokesman for the city government estimated that some 65,000 former residents could not return to their homes, while those who did return had few basic services and less than four hours of electricity per day. A United Nations report on the conditions concluded:

> 'Very little can be seen visibly on the streets of Fallujah in terms of reconstruction. There are destroyed buildings on almost every street. Local authorities say about 60 percent of all houses in the city were totally destroyed or seriously damaged and less than 20 percent of them have been repaired so far … Power, water treatment and sewage systems are still not functioning properly and many districts of the city are without potable water.' (Jamail and Fadhil, 25 June 2006)

Ali Ahmed, a 17-year-old resident of Falluja expressed the opinion of many when he told the *Inter Press Service*:

> 'The Americans and Iraqis in power accused us of terror, killed thousands of us and now they are just talking about reconstruction. Well, they are all thieves who only care for what they can pinch off the Iraqi fortunes. Just tell them to leave us alone as we do not want their fraudulent reconstruction.' (Jamail and Fadhil, 25 June 2006)

In early 2006, an American soldier, on duty in Falluja, testified both to the ongoing devastation and to the demoralization of the city's residents:

> 'Trash is everywhere. Heaps upon mounds upon piles of trash of every kind litter every single street in every single direction. I saw

> many houses where I believe the residents were throwing trash bags from their house directly into the street. It's insane. There is also rubble and debris everywhere. I am not sure how much of this is the result of Al Fajr (The Dawn, the 2nd battle for Fallujah), but I can confidently say there is no effort on the part of the citizens to clear the bricks and mortar blocks from their own front yards.' (Barne, 2006)

The American military machine had transformed the 'City of Mosques', known for its gorgeous minarets and tasty shish kebab, into a replica of the slum cities that it took decades of economic desperation to create in the Global South. The new Falluja, replete with fragile utility-less dwellings erected in the rubble of substantial homes, featuring elementary education conducted in tents where schoolyards used to be, and debilitated by communicable disease caused by filth and pollution flowing out of the wrecked sewers, was indeed 'a feat of social and physical engineering'.

The history of war in the 20th century, as philosopher Eduardo Mendieta points out, 'has been the history of the destruction of cities' (Mendieta, 2005, p. 197). After an auspicious beginning with the Falange air attack on Guernica during the Spanish Civil war, attacks on cities became the centerpiece of World War II, which featured the 'flattening' of the Warsaw Ghetto; the 'rape' of Nanking; the blitzkrieg of London; the destruction of 80 percent of all urban dwellings in Germany; the firebombing of Hamburg, Tokyo and Frankfurt; and the nucleation of Hiroshima and Nagasaki. The lesser, later wars have also featured the destruction of cities, from Vietnam to Chechnya (Mendieta, 2005).

But even this systematic annihilation, however horrible, has at least sometimes been reparable. After World War II, even the most devastated cities, for example, Hamburg, Frankfurt, Hiroshima and Nagasaki, began to revive as soon as the inhabitants returned and initiated reconstruction, sometimes even before the end of hostilities. Even in Vietnam, the resilience of local residents ultimately reversed the downward economic and social trajectory, once the war was ended.

In Iraq, however, this resilience was dampened, and perhaps defeated, by the new 21st-century strategy that was so much more ambitious and permanent in the changes it sought to impose. In Germany and Japan, the government—supported by the American occupation—underwrote and organized the reconstruction of the devastated cities, investing or mobilizing vast monetary and human resources without requiring that they make themselves attractively profitable to risk averse foreign investors. In Falluja, however, this sort of commitment was not only unavailable, it was anathema to occupation policy: the global neo-liberal project, required that Falluja be made available for accumulation by dispossession. And this meant that the local economy had to be made accessible to outside investors, who would—sooner or later—choose the favorable opportunities for capital accumulation and thus begin the process of economic revival.

To guarantee this openness, the city could not be allowed to reconstruct on its old economic foundations, based, as they had been, on state subsidies, government enterprises, and the economic leverage exercised by empowered technicians and skilled workers committed to the system they had built and maintained. Therefore, even the spontaneous reconstruction by local citizens had to be carefully controlled and monitored.

In Falluja, we see this policy enacted in the uncounted thousands of refugees who were neither provided for nor encouraged to return to the city; and who eventually settled elsewhere, taking with them precious human and social capital needed to reproduce the old city. And we see it in the impossibility of constructing the city's economy when all commerce waited hours to enter or leave the city. Reconstruction efforts—even those initiated and financed by residents—were frustrated by these barriers, by the absence of needed skills that had been exiled with the

refugees and by the exclusion of all 'dual use' items that might supply a once-again growing insurgency.[30]

If these barriers to revival remained in place long enough, the foundations of local society—the manufacturing and commerce that sustained it economically, and mosques and other institutions that provided the foundation for its community life—would atrophy and eventually die. As the occupation continued, therefore, the city's potential for revived viability was permanently compromised. Once the human and economic resources for reconstruction fell below critical mass, Falluja would fit the neo-liberal mold: a slum city, sitting at the periphery of global society, waiting for the magic of economic revival by private investment.

The destructive routine of urban warfare

But the battle of Falluja was unique, and we must therefore investigate the fate of other cities: those that were the unfortunate locales of ongoing battles and those that mercifully escaped the direct ravages of urban warfare.

US military strategy in 2004 was formulated around the proposition that the destruction of Falluja would be a deterrent against insurgency elsewhere. A high Pentagon official told *New York Times* reporters Thom Shanker and Eric Schmitt the larger logic of the battle:

> 'If there are civilians dying in connection with these attacks, and with the destruction, the locals at some point have to make a decision. Do they want to harbor the insurgents and suffer the consequences that come with that, or do they want to get rid of the insurgents and have the benefits of not having them there?' (Shanker and Schmitt, October 2005)

In short, the US military expected that the devastation of Falluja would convince Iraqis in other cities not to 'harbor' the resistance, and therefore obviate the need for further destructive attacks. Here, then, is the direct application of Rizer's report that demoralizing the civilian population has become an integral part of American military strategy (Rizer, 2001).

The ferocity of the US attack in Falluja did not, however, mute the resistance in other cities. The number of insurgent attacks against American troops remained at the same average level in the six months following the battle and then increased measurably after the spring of 2005 (Brookings Institution, May 2006, p. 22). More significantly, the resistance continued to challenge for control in many cities in the Sunni areas of the country, even capturing Mosul, the third largest city in Iraq, while the battle of Falluja was in progress. Beginning in late 2004, the USA mounted major operations to establish, maintain or recapture control of key cities throughout the Sunni areas of Iraq, including, Ramadi, Mosul, Tal Afar and Haditha.[31] In these, and many other cities and towns, the fighting set in motion the same slum city dynamics as in Falluja.

The deconstruction of Ramadi

Ramadi, where *Washington Post* reporter Ellen Knickmeyer reported that 'heavy fighting' had left the city 'a bombed-out, weed-overgrown, deserted wasteland',[32] illustrates the central role that attacks on infrastructure—so critical to Pentagon theories of modern war—played in the military strategy of the American occupation and in the subsequent economic marginalization of the cities involved.

The destruction of Ramadi did not start until well after the fall of the Saddamist regime. US troops did not enter the city during the first days of the occupation, reportedly because a deal was made to allow local tribal leaders to form an indigenous government.[33] In the summer of 2003, therefore, there was little looting as the local tribes policed the city, and few armed conflicts, since the American military kept its distance. Eventually, when there was a 'peaceful demonstration against the occupation', made

up of about 30 people, the Americans decided that the Saddamists were organizing and began patrols within the city. 'Iraqis were killed, and, following tribal policies of revenge, a cycle of violence began' (Conley, June 2006).

Three years later, American officials told reporters that the city was 'under insurgent control'; and Abu Musab al Zarqawi was rumored to have made his headquarters there.[34] Even after the Americans began a concerted offensive designed to capture the Ramadi, Sheikh Majeed al-Ga'oud, a frequent visitor to the besieged city, described it as 'a city where the fighters are very much in control':

> 'They are controlling the ground and they are very self-confident. They don't cover their faces with masks, and the Americans are running away from them. The Americans cannot win an infantry war with them, so they began using massive airpower to bomb them.' (Conley, June 2006)

The American offensive utilized what was becoming their standard four-pronged strategy. First, they cut the city off from the outside world by establishing two checkpoints (eventually reduced to one) where they scrutinized all people and vehicles entering and exiting the city (residents reported that the only unauthorized routes involved crossing a barren desert). This was designed to search for insurgents, but it had the devastating side effect of destroying the social and economic life of the city. A refugee described the grim passage to *Inter Press Service* reporter Brian Conley:

> 'To enter Ramadi … you have to pass the bridge on the Euphrates and the electrical station for Ramadi. This is occupied by the U.S. troops. The checkpoint is there, the glass factory nearby is occupied by American snipers. Here they inspect cars and you will need more than four hours just to pass the bridge.'

Second, they targeted the Ramadi infrastructure, following Rizer's observation that by 'declaring dual-use targets legitimate military objectives, the Air Force can directly target civilian morale'. In Ramadi, this meant that, by mid-2006, 'there were no civil services functioning'. Al-Ga'oud, told Conley:

> 'They bombed the power stations, water treatment facilities, and water pipes. This house is destroyed, that house is destroyed. You will see poverty everywhere. The things that the simplest human in the world must have, you won't have it there.'

A Ramadi resident added:

> 'The phone station was attacked by U.S. troops, and now even the building is completely destroyed. And the train station also, one hundred percent destroyed, day after day F16s bomb it.'

Hospitals, though not attacked directly, were not allowed to bring in needed medical supplies.

'Deteriorating public service conditions', even in neighborhoods where there was little or no fighting, created a stream of refugees, setting in motion the sort of dislocations that rob cities of their economic, political and cultural viability (Cole, June 2006).

Third, they demanded that the residents turn over the guerrilla fighters under threat of wholesale destruction. Mauricio Mascia, an Italian relief worker, told the *Inter Press Service* about the choice offered local residents on a neighborhood-by-neighborhood basis:

> 'And similar to the tactics used during the U.S. assault on Fallujah in November 2004, the U.S. military continues to use loudspeakers to ask people to either hand over "insurgents" who are present in their neighbourhoods, or to evacuate their homes and flee the city. ICS reports that some of the messages have specifically made reference to what happened in Fallujah.' (Jamail and Fadhil, 22 June 2006)

Fourth, after many of the residents fled rather than 'hand over' the guerrillas, they

invaded the city, using all the weapons at their disposal, including air power, artillery and—most visibly—snipers. One resident told Conley that snipers in tall buildings along the main downtown street had converted the thoroughfare into a free-fire zone:

> '[Main Street] is blocked, not by concrete, but by snipers. Anyone who goes ahead in the street will be killed. There's no sign that it's not allowed, but it's known to the local people. Many people came to visit us from Baghdad. They didn't know this and they went ahead a few metres and were killed.'

Another resident, Qasem Dulaimi, described how his house was commandeered by American snipers while his family was held hostage inside, apparently to deter insurgents' counterattacks:

> '"They crushed the main doors and entered the house. I got out of my room and said some words in English, 'we are a peaceful family, ok its ok'." But the family members were locked up in a small room downstairs.
>
> "From time to time we heard shooting from our roof. They used our house as a killing tool, they used the roof as a killing tool."
>
> Eventually his family was released and the American troops moved on.'

As the siege of Ramadi wore on, it was clear that the effort to find, capture or kill insurgents could not, in the long run, succeed. The US hope, therefore, rested on the parallel effort to demoralize the local population, to convince them to expel or demobilize the resistance. In this effort, the increasing health and economic crisis caused by the destroyed infrastructure was at least as important as the ongoing military destruction.

In the meantime, the deconstruction of the city was proceeding apace: more and more refugees were leaving, the economy was paralyzed and losing its moorings, the infrastructural damage was reaching the point of no return and neighborhoods were being destroyed, one at a time. Even if the fighting stopped before the invasion of all neighborhoods, the combination of infrastructural damage and evacuation had converted Ramadi into an economically dysfunctional and marginalized city.

The deconstruction of Baiji

The city of Baiji offers yet another facet of this deconstruction process, where the physical damage of the war is the least important part of the city's decline.[35]

As the site of the largest oil refining plant in Iraq, Baiji had a strategic importance beyond what its moderate population of 70,000 would suggest. During the Hussein regime its 98 percent Sunni population was supported by well paying jobs in the government-owned industrial district that grew up around the oil refining facilities. But Baiji fell onto hard times when Coalition Administrator Paul Bremer's privatization program demobilized most government-owned enterprises. Though the oil industry was spared, the other industries fell into disuse, and unemployment swept through Baiji, generating deep bitterness among local residents and inspiring a variety of protests against the US presence.[36]

In late 2003, in response to the growing discontent, the USA initiated what *Washington Post* reporter Ann Tyson characterized as 'heavy-handed sweeps through Baiji by U.S. forces … [that] left many people angry, frightened and humiliated'. Adil Faez Jeel, the director of the oil refinery in the town, told her that these sweeps, along with the economic depression, solidified local support for armed resistance: 'Most of the people fighting the Americans tell me they do nothing for us but destroy the houses and capture people.… There are no jobs, no water, no electricity' (Tyson, January 2006).

By late 2004, Baiji guerrilla's were strong enough to seek control of the town, and they asserted that control while the USA was busy

fighting in Falluja (thus joining many other Sunni towns that became centers of resistance during that period). In addition to skirmishes with US troops and Iraqi police, the guerrillas sabotaged pipelines emanating from the oil refinery and attacked trucks transporting oil for export and to Baghdad. The biggest battle occurred in the center of town when guerrillas launched a mortar attack against a joint American and Iraqi national guard patrol, triggering two days of battles. A doctor at the local hospital told the *Agence France Press* that at least 10 civilians were killed and 26 wounded (INDYBAY, November 2004).

For the next year, Baiji was out of the news, largely because the US military was busy with massive military sweeps in the west of Anbar province. This quiescence ended in late 2005, when the Americans returned to Baiji, characterized at that time by *Post* reporter Tyson as 'a Sunni city long neglected by American forces and still firmly in the grip of insurgents' (Tyson, January 2006).

According to US military sources, the new attempt at pacification was partly provoked by suspicions that local guerrillas were using Baiji as a staging area for attacks in Mosul and Baghdad. But more immediately the occupation sought to reverse the insurgency's growing control over the oil business in the city. The guerrillas had become even bolder in interdicting shipments out of the city, repeatedly breaking the pipeline, attacking a 60 truck convoy in late 2005, and generally attempting to deprive the Americans and the Iraqi government of any and all oil deriving from the Baiji complex. At the same time, the insurgents and their allies among local tribal leaders were systematically siphoning off a measurable proportion of the oil refinery output for sale on the black market. A resistance supporter in Baiji told *Inter Press Service* reporters Brian Conley and Isam Rashid that their actions were an attempt to stop US theft of Iraqi oil: 'This petrol will go to Turkey and is stolen by the occupation forces; or, when Turkey buys this petrol, the money is taken by the occupation forces' (Conley and Rashid, February 2006).

In the view of the resistance, therefore, they were justified in both attacking the pipelines and convoys, and in acquiring the oil for their own purposes, which served the interest of the local community and the Iraqi people. According to reporter Oliver Poole of the British *Telegraph*, the resistance was acquiring tens of millions of dollars per year from their siphoning operations, and that the returns were also going to a great many others (Poole, February 2006).[37]

To prevent the resistance from using the oil, Americans closed the refinery in late 2005 and sent in the Army's 101st Airborne Division to secure the town. The campaign extended into the summer of 2006 without resolution, replete with ferocious ground battles that caused many American casualties and US bombing attacks on houses and communities in which resistance fighters were thought to be hiding. Sgt. 1st Class Danny Kidd, a veteran of both the Afghan and Iraqi war, attributed the hard going to the fact that Baiji residents supported the guerrilla fighters: 'They have the place locked down. We have almost no support from the local people. We talk to 1,000 people and one will come forward' (Tyson, January 2006).

The ferocity of the resistance led to an official escalation of the American assault. According to the *Army Times*, the new strategy was modeled after 'walls built around Falluja and Samarra in recent months [that] have quelled restive insurgent cells'. It involved the construction of an earthen barrier around Siniyah, the most rebellious neighborhood in the city. Checkpoints were set up to stop 'all vehicles leaving or entering … as soldiers look for known insurgents, bomb-making materials and illegal weapons' (Lenz, January 2006).

These draconian measures ended all normal life in the area. Anyone with business outside the community could not reliably pass through the checkpoint: college students interrupted their education, employees lost

their jobs, local commercial establishments could not function. Sumiya, a 33-year-old Siniyah housewife, who spoke on the phone to *Inter Press Service* reporters Brian Conley and Isam Rashid, described the situation inside the community of 3000:

> 'Siniyah has become a real battlefield now, and the occupation forces have destroyed many of our homes.… There is no security inside Siniyah and it is worse than any place in Iraq now. The occupation forces and Iraqi National Guard are raiding Siniyah houses everyday and arresting many people. There is a curfew from 5 PM to 5 AM; in Baghdad it is only midnight to 5 AM.' (Conley and Rashid, February 2006)

One resident told Conley and Rashid that 'we live in a very big jail for three thousand', and a local cleric told the *Army Times* that Siniyah had become 'a concentration camp' (Lenz, January 2006).

As in most other Sunni cities, the fighting in Baiji occurred episodically, cresting during US efforts at pacification and subsiding during the much longer periods when the local leadership ruled (in league with resistance fighters) while the USA was busy elsewhere. But the physical, economic and infrastructural decline of the city was more-or-less continuous. With no resources available to reconstruct the cities, each episode left the electrical, water and hospital systems further degraded. The economic depression not only eliminated the possibility of physical reconstruction, but also became a barrier to even a minimally adequate existence.

But beyond the ongoing physical damage, there are three elements in the Baiji story that bear further scrutiny, because they exemplify the ways in which the American presence impacted in a way different from 'normal' warfare and therefore created a 'slum city' dynamic that could be irreversible. These three elements were the demobilization of the state-owned industrial plants at the beginning of the occupation (part of the original neo-liberal reforms instituted by the occupation); the ultimately successful campaign by the American military to end the siphoning off of oil (the refinery was re-opened in mid-2006 under strict American control); and the military encirclement of the Siniyah neighborhood. Taken together, these actions definitively undermined the viability of the city, and therefore threatened to make it unreconstructable.

The initial demobilization of the state-owned factories did more than create crippling unemployment; it threatened to destroy an entire industrial district that could have supplied Iraq with a variety of manufactured goods, and could have formed the foundation for expanded production and modernization. Such industrial districts are precious and fragile. If the unemployment generated by demobilization is not offset by compensatory benefits, key personnel leave in search of new jobs, while the idle factories either corrode or are looted for parts (by criminals and/or former employees). The support network for the industrial district—suppliers, educational institutions and financial sources—all atrophy. These processes, if not arrested and eventually reversed, corrode the region's ability to be economically productive.

The siphoning off of oil represented an Iraqi solution to these sorts of economic shocks which had begun under the Hussein regime (Glanz and Worth, June 2006). Like many primary industries around the world, the oil industry is susceptible to local theft, with economically stressed communities using these illegally acquired assets to tide them over financially.[38] During the last economically desperate years of the Saddam regime, local tribal leaders had systematically siphoned off oil, escaping government retribution by threatening to attack the pipelines if the government moved to stop them.

A British *Telegraph* report in February 2006 indicates that this informal system had been operating in Baiji since the US occupation began. One of the Baiji tribal leaders, Meshaan al-Jaburi, the leader of the Jaburi tribe and a Member of Parliament, had been entrusted with forming and commanding 17

battalions of security officers to guard the pipeline near Baiji. The government charged that he had not formed the security force, and had instead kept the payments for the security force, participated in the siphoning process and helped to organize attacks on government shipments of the oil, while 'funneling a portion of the money to rebel groups'. In other words, the Jaburi tribe was using local oil to enrich themselves, fuel the local economy and support the resistance to the occupation.[39] The successful American efforts to choke off this flow of revenues (Jaburi himself fled the country) deprived the city of an economic lifeline that might have helped it to keep its people and facilities in workable order until they could be revived.

Finally, the encirclement of Siniyah represented yet another crippling blow to the social system of the city. While it offered the occupation the possibility of containing or even defeating the resistance (by limiting its supplies and its mobility)—the barrier definitively disrupted the social economy of the town, depriving the larger community of the economic resources that Siniyah residents provided. No city can function when a substantial fraction of its productive citizens are demobilized, so Baiji—already prostrate from the earlier economic shocks—was dealt another crippling blow. The isolation, unemployment and the daily struggle of survival meant that key family members within Siniyah could not lend each other support, that local mosques were strained beyond the limit of their social and personal resources, and that the routine fabric of daily life in the city as a whole was ruptured.

These three developments created a dynamic of economic and social strangulation, which—continued long enough—could convert Baiji into the same rudderless wasteland as Falluja and Ramadi, even when and if the fighting subsided. By mid-2006, after three years of occupation and war, this dynamic, in many different forms, had become a part of daily life in many Iraqi cities.

Baiji, of course, is itself unique, since its status as an oil hub guaranteed its eventual revival, probably sooner rather than later. But the deconstruction of the pre-invasion economy—the debilitation of existing facilities and the devaluation of existing human capital trained to work in the idled and looted local factories—meant that when the revival occurred, there would be no viable competitors to the multinational firms seeking profitable investment in the oil refining hub. Once these MNCs enter the Baiji economy, the process of accumulation by dispossession will be complete. They will have transferred the oil facilities into private hands, without paying for the decades-long investment of labor and resources in the Baiji industrial district; and they will then be in a position to employ local labor (or import foreign labor) at a fraction of the cost that it would have commanded had the old system been preserved. Despite its faltering counter-insurgency efforts in Baiji, the occupation had accomplished its neo-liberal agenda, and—as it had elsewhere—this left the local residents in a slum city economy.

Mohammed Sarhan, 50, a grocer in the southern Baghdad neighborhood of Dora, spoke for the residents of many Iraqi cities when he told the Washington Post: 'So many problems are happening in the city.… Where do I start—water, electricity, security, unemployment or health? … This is not a life. This is hell' (Mosher and Septi, June 2005).

The diffusion of slumification[40]

During the first three years of the war, many areas of Iraq escaped the direct devastation of major military actions. The fighting was concentrated in the Sunni cities located to the west and north of Baghdad, and in the Sunni areas of the capital.[41] While the vast majority of Shia were anxious for the Americans to leave, most Shia cities were not subjected to the sort of focused destruction that the war brought to the Sunni cities, despite noteworthy military moments in Shia areas of Sadr

City, Najaf and Karbala,[42] and occasional flare-ups of violence in Basra.[43] And, in Kurdistan, which broadened the autonomy it had gained under Saddam Hussein, there was even less fighting, though Kirkuk was the scene of serious battles led by Sunni and Turkman insurgents against the Kurdish government (Schwartz, 9 March 2006).

One might hope that this quiescence represented insulation from the stranglehold of slumification, but it only meant that the degradation was slower—though still much quicker than the neo-liberal decline experienced elsewhere. The locus of decline—and the most important source of irreversible damage—was the Iraqi infrastructure. Though it had been less focused on infrastructure than the 1991 attack, the initial American bombing and artillery barrage nevertheless added substantially to the degradation of a system that had already been weakened by the combination of the Hussein regime and the UN sanctions against Iraq. Unfortunately, the reconstruction effort, rather than beginning its rehabilitation, contributed further to its decline.

One clear signal that reconstruction was contributing to the strangulation of the Iraqi infrastructure was the December 2004 report card issued by the Center for Strategic and International Studies' Post Conflict Reconstruction Project (Barton and Crocker, December 2004).[44] At that time, the major reconstruction projects should have been nearing completion, with the water system, education systems and electrical grid projected to be functioning at levels well beyond those of the Hussein regime. Instead, very little tangible progress had been recorded. The report began: 'The substantial U.S. funding for the reconstruction effort in Iraq is expected to have a significant impact on the ground. Our analysis, however, shows that the impact will be diffused in a number of ways.' It then pointed out that only 27 percent of amounts committed up to that point had been invested in reconstruction, while 30 percent had been spent on security, 12 percent on insurance and international salaries not associated with reconstruction, 10 percent on overhead and 6 percent on profits. The remaining 15 percent had been frittered away on what the CSIS called 'fraud, corruption, and mismanagement'. Even so, other informed observers considered this measurement a dramatic overestimate of the amount devoted to actual reconstruction.[45]

A closer look at the dynamics of reconstruction gives us a better sense of this failure, and it also allows us to see how the US economic presence—like its military operations—created the downward dynamic toward slumification—much faster than the neo-liberal process elsewhere, but slow motion when compared to the rapid degradation of Baiji and Ramadi, and supersonic destruction of Falluja.

Repairing the oil pipeline at Al Fatah

In the spring of 2006, reporter James Glanz of the *New York Times* offered a neat window into the dynamics of this downward spiral with his report of the American effort to repair an inoperative oil pipeline in Al Fatah, a village about 130 miles north of Baghdad, and on the main pipeline from Baiji (Glanz, 25 April 2006). The pipeline had been broken at the beginning of the war by an American air attack on a bridge that carried it across the Tigris river. Immediately after the fall of Saddam Hussein's regime in April 2003, plans were activated to repair the bridge and re-establish the pipeline. Original estimates indicated that it would cost some $5 million to reactivate the pipeline once the bridge was restored. A total of $75.7 million was allocated for the combined bridge and pipeline repair with a mandate to complete the work by early 2004. The occupation authorities were anxious to earn the $5 million per day in oil revenues that a reconnected pipeline promised.

Just as quickly, problems began to arise, first and foremost from a decision by occupation officials not to repair the bridge. KBR,

the Halliburton subsidiary in charge of the project, was forced to seek a new method of laying the pipeline across the Tigris. To compensate for their added burden, the entire $76 million budget—originally designated for bridge and pipeline repair—was reallocated to the pipeline project. The deadline was extended to May 2004.

When Robert Sanders of the Army Corps of Engineers arrived to inspect the work during July 2004, the project was two months late and in complete disarray. What Sanders found, according to Glanz, 'looked like some gargantuan heart-bypass operation gone nightmarishly bad'. Sanders decided that the entire enterprise was unredeemable and had to be reconceived. However, this was not done, because by that time

> 'the project had burned up all of the $75.7 million allocated to it, [and] the work came to a halt.… A supervisor later told Sanders that the project's crews knew that [the plan for laying the pipe] was not possible, but that they had been instructed by the company in charge of the project to continue anyway.'

Sanders issued a scathing report detailing what he called 'culpable negligence' on the part of KBR. But his report had little impact. Though the Army Corps of Engineers deprived KBR of its small bonus fees, nothing was done to recover the wasted millions, or to force the completion of the project.

Five important points emerge from this story:

First, the bridge and pipeline were originally destroyed by the US military. The attack was ordered during the initial fighting, on 3 April 2003, by US General T. Michael Moseley 'to stop the enemy from crossing the bridge on which the original pipelines had run through openings beneath the road'. This is typical of the infrastructural damage caused by the USA in Iraq. During the initial battles of the invasion, and during subsequent sweeps against the Iraqi resistance after the occupation was underway, the USA destroyed or damaged roads, bridges, electrical transmission, oil facilities, sewage lines and water treatment plants, commercial and industrial structures, and even mosques and hospitals (Schwartz, 14 January 2005, 12 March 2006). While the resistance also targeted such structures, particularly oil pipelines and electrical transmission lines,[46] its destructive powers were relatively modest compared to what American airpower could accomplish with 500 and 2000 pound bombs (Engelhardt, December 2004).

Second, instead of simply repairing the damage, the USA undertook a major overhaul of the pipeline system. Occupation authorities replaced the original plan to repair the bridge and pipeline with one to sink a new pipeline into the bed of the Tigris, in the process escalating the cost of the pipeline repair from $5 to $75 million.

This strategic decision reflected the larger American project of economic reform in Iraq that involved demobilizing Iraqi state enterprises (including those with experience in just this sort of repair work) and so bring the Iraqi economy irrevocably into the global system.[47] Modern equipment and infrastructure, introduced by largely American-owned MNCs, would then have to be maintained by those same corporations. This project was, in this way, typical of the bulk of the reconstruction projects authorized by the CPA using the $18 billion Congress allocated for the task as well as the Iraqi oil money that had fallen into US hands (Klein, September 2004; Docena, March 2006).

Brigadier General Robert Crear, the US Army Corps of Engineers officer in charge of reconstructing the oil industry, summed up this 'replace everything' approach to *Houston Chronicle* reporter David Ivanovich: 'It's nation building. It's starting from scratch.'[48]

Third, the contractor knew beforehand that the project might fail. The Al Fatah crossing project was one of many undertaken without competitive bidding by KBR, the omnipresent Halliburton subsidiary. In implementing its ambitious plan, KBR officials ignored at least three of their own technical reports that 'warned that the effort would fail if carried out as designed'. A later

investigation by the United States Special Inspector General for Iraq Reconstruction concluded: '[T]he geological complexities that caused the project to fail were not only foreseeable but predicted' (Glanz, 25 April 2006).

So why did KBR proceed with a doomed plan? *Times* reporter Glanz does not address this question, but the answer can be found in the combined impact of two elements of US reconstruction policy: lack of competitive bidding and self-regulation by contractors. In the absence of competitive bidding, there is an incentive to propose and execute the most ambitious and expensive versions of any project, and to squirrel away hidden profits during its execution. In this case, the cancellation of the bridge reconstruction project by the occupation authorities only added to that incentive, since the bridge-repair allocation was absorbed into the pipeline repair budget.[49]

Such tendencies toward overspending and corruption can normally be limited by tight oversight procedures. But at Al Fatah, as with most such projects in Iraq, no oversight system was ever implemented. As a result, there was no effective way to rein in the contracting companies, penalize them for unjustified cost overruns or sanction them for failure to execute a contract as promised.[50]

By the third anniversary of the invasion, the consequences of this fatally flawed contracting system were visible all over Iraq, where inappropriate, inadequate, incomplete or never-started projects were legion; and where, in virtually every case, contractors nevertheless received full payment on expensive contracts (see below). Media reports on such cases often quoted US officials saying that the ferocity of the insurgency escalated expenses and/or undermined quality and/or made the project unworkable. Glanz's report, to its credit, specifically puts this explanation in proper perspective: 'Although the failures of [reconstruction] are routinely attributed to insurgent attacks, an examination of this project shows that troubled decision-making and execution have played equally important roles' (Glanz, 25 April 2006).

The General Accountability Office of the United States, referring to the entire reconstruction effort, echoed Glanz' comment (though in much more diplomatic language) in its report to the Senate Foreign Relations Committee in February 2006:

> 'While poor security conditions have slowed reconstruction and increased costs, a variety of management challenges also have adversely affected the implementation of the U.S. reconstruction program. In September 2005, we reported that management challenges such as low initial cost estimates and delays in funding and awarding task orders have led to the reduced scope of the water and sanitation program and delays in starting projects. In addition, U.S. agency and contractor officials have cited difficulties in initially defining project scope, schedule, and cost, as well as concerns with project execution, as further impeding progress and increasing program costs. These difficulties include lack of agreement among U.S. agencies, contractors, and Iraqi authorities; high staff turnover; an inflationary environment that makes it difficult to submit accurate pricing; unanticipated project site conditions; and uncertain ownership of project sites.' (USGAO, February 2006)

As a consequence of this pattern, multiplied across the entire reconstruction effort, the most profitable projects were those that were most ambitious. Moreover, these over-ambitious projects were often more profitable if they failed than if they were successfully completed, since such failure might either allow for siphoning off needed funds into profits and/or a supplementary allocation to redo or complete the job (Buffa and Chatterjee, May 2005).

Fourth, three years after it was started, the project had still not been completed. Army Corps of Engineers inspector Sanders was sent to investigate because KBR was overdue in completing the project. He determined the project was doomed and the people in charge agreed that 'it was just the

wrong place for horizontal drilling [the technique they used]'. But, by then, 'all the money had been spent'; there were no funds left to implement a new strategy.

That was in July 2004. Almost two years later, in April 2006, when Glanz undertook his investigative report, a new project had been commissioned, utilizing the skills of two other corporations and a more modest strategy, which nevertheless was projected to cost $40 million or so and involved expensive state-of-the-art equipment and techniques (Stockman, January 2006). That is, they had not decided to repair the bridge and pipeline; nor had they decided to reactivate the Iraqi state enterprises that were expert in such repairs.

According to Colonel Richard B. Jenkins, the Army officer in charge of the new effort, it was 'essentially a finished project'. An official at the Iraqi North Oil Company, however, begged to disagree; no oil, he pointed out, had yet been transported through the pipeline. Moreover, if and when the project was actually completed, it remained vulnerable to attack along its entire length by the resistance. American officials even acknowledged that increased production 'will only happen if Iraqis can protect the entire pipeline' (Stockman, January 2006).

The timeline at Al Fatah—three years and counting to complete a project that well-qualified state-owned Iraqi companies would have completed in several months—epitomizes the way Iraqi oil facilities were handled by the US occupation. The actual production of oil was far less crucial than the economic transformation, and the USA was willing to sacrifice oil production, Iraqi employment and the economic viability of the country on the alter of neo-liberal reform.

The tolerance of corruption was certainly one of the least savory elements of the American reconstruction effort in Iraq, but it, too, was tolerated as long it did not interfere with the process of economic transformation. In the case of Baiji—and elsewhere—corruption was not at all incompatible with larger projects: it contributed to the process of dismantling the Iraqi socialist infrastructure and replacing it with dependency on globalized capital. Certainly the occupation administration would prefer a more efficient route to the same end, but they tolerate inefficiency, particularly from firms that are themselves central players in the globalization project.

Before the invasion, Iraq produced about 2.5 million barrels of oil per day, a rate far below its potential. After promising to reach 4.0 million barrels per day by the following year, the CPA presided over a decline in production. In only one of the 36 months following the American invasion did the daily average reach that figure. Instead it sunk steadily after 2003, falling below 2.3 million barrels per day in 2004, below 2.2 million barrels in 2005 and below 2.0 million barrels in the first months of 2006 (Brookings Institution, May 2006, p. 30; Glanz, February 2006). Like Al Fatah, other reclamation projects faltered and failed as the USA implemented ambitious transformations that would tie the Iraqi oil industry into the world system (Zand, May 2006) while undermining the existing production facilities.

Fifth, the Iraqis were left with a project they could not complete, repair or maintain. Because Iraqi engineers were excluded from the project from the beginning, because the American contractors chose new technology that dropped the pipeline onto the bottom of the Tigris river (instead of attaching it to a rebuilt bridge) and because there was no training for local technicians to master the new technology (and no educational institutions teaching it), the Iraqis were left completely dependent upon American expertise into the foreseeable future.

In the context of Iraq, this manufactured dependency became a part of the locked-in decline of the Iraqi economy. If the project remained unfinished, even a remobilized Iraqi contractor would not have the expertise to complete the job. If the pipeline was completed, the likelihood of breakdowns, which Iraqi engineers had no expertise to

address, would be high for at least the shakedown period for the new technology. Without any indigenous expertise, Iraq would be dependent on the American contractors and their multinational subcontractors. Iraqi technicians, left idle or semi-idle by the US policy of excluding them, would leave the industry or the country in search of other livelihoods, thus impoverishing the reservoir of expertise available to the country. The firms in charge would then hire untrained workers (or import trained ones) at low prices, thus guaranteeing a long-term low-wage labor pool for their future operations.

This 'lock-in' effect is a key source of the downward spiral of the Iraqi infrastructure. In all realms, even those most insulated from the war and from the American presence, the changes wrought by the occupation were designed to create dependence on outsiders for basic infrastructural building blocks, while reducing the reservoir of usable expertise within the country. As the failures multiplied, Iraqi society would of necessity become less and less able to address the problems that plagued it, while having fewer and fewer resources with which to access the outside expertise on which they had become dependent.

The corrosive impact of reconstruction on the Iraqi infrastructure

The condition of the oil facilities was echoed in other infrastructural areas (UN & IMPDC, 2005). The $18 billion allocated to reconstruction by the Bush administration was augmented by perhaps $5 billion in donations and loans from other countries and an unknown amount of leftover oil revenues from the Saddam era.[51] This total was substantially below the initial United Nations estimate that $56 billion would be needed to restore the country to infrastructural health after the initial invasion, a figure that escalated dramatically as the fighting continued and the decrepit state of the infrastructure became fully apparent (USGAO, February 2006).

At no point, therefore, were enough funds available to restore Iraq to economic and social viability, and—as the CSIS report made clear—only about a quarter of the allocated funds were actually spent on reconstruction. But these problems were probably less significant than the fact that the dynamic of the actual work done involved discarding Iraqi fixed and human capital, and replacing it with technologies that Iraqis could not operate, maintain or develop.

This meant that even the most carefully executed reconstruction projects tended to undermine the viability of the Iraqi infrastructure; that this process of deconstruction would at some point become irreversible, and that therefore the entire process was creating an abyss into which Iraqi society would continue to descend even after the US military withdrew. Given enough time, the American presence would set in motion a lock-in process of impoverished dependency capable of converting Iraq into a country of economically marginalized slum cities.[52]

The short circuit in electrical power

The initial United Nations estimate indicated that $12 billion would be needed just to bring Iraq's electrical grid back to its unsatisfactory prewar status. Nevertheless, the inadequate $5.6 billion allocated for the task was reduced further when $1.3 billion was diverted in 2004 to train the Iraqi army (Harriman, July 2005; Brookings Institution, May 2006, p. 35).

The estimated costs escalated dramatically during 2004, as the magnitude of the task became more apparent, and as electrical installations became frequent targets for both the resistance and the Americans, each seeking to deprive the other of needed power. (As with oil, the bulk of the destruction was done by the occupation: whereas the insurgents sabotaged transmission lines

and occasionally were able to assault switching stations, the USA used air power to attack major facilities in cities where the resistance was dominant, destroying power plants in Falluja, Tal Afar, Ramadi and elsewhere (Ali, December 2005).)

And, while there was a steady stream of news about new electrical capacity coming on line, the new capacity could not keep up with the ongoing destruction and the 15 percent per year increase in demand, generated by a combination of new electrical appliances that the Iraqi middle class had purchased and the huge presence of the military occupation (Glanz, February 2006; Hernandez, May 2006).

The most symptomatic source of electrical decline, however, derived from the degradation of existing capacity in areas largely unaffected by the fighting. A typical instance occurred in the Najibiya power plant in Basra, one of the most peaceful cities in Iraq until violence erupted in 2006. In late 2003, the aging (even decrepit) turbines at the Najibiya plant—until then unaffected by the war—began to fail.[53] According to Yaruub Jassim, the manager of the plant, the problem was his staff's inability to obtain replacement parts, which delayed the October 2003 maintenance and resulted in shut-downs the following December. Bechtel, the US contractor in charge of supplying and reconstructing the plant, was unresponsive to Jassim's requests: 'We asked Bechtel many times to please help us', but the only response had been an apparently mistaken delivery of air conditioners (Docena, December 2003).

In this case, the key to Bechtel's unresponsiveness was the fact that existing turbines were built in Russia. Since President Bush had excluded Russian contractors from participating in Iraqi reconstruction because of their government's failure to support the invasion, Bechtel could justify delaying delivery while it found a way to produce the items itself. And if these delays degraded the existing facility, this would be to Bechtel's long-term interest. Independent reporter Herbert Docena described the situation:

> 'To ensure that the turbines are not completely degraded, Bechtel should either quickly manufacture the required spare parts itself, a very long and very costly process, buy the spare parts from the Russian company directly, or hire the Russian firm as a sub-contractor. That, or they just allow the crumbling turbines to turn completely useless. Then they bid for building new billion-dollar power generators themselves.' (Docena, December 2003)

Unfortunately, this incident was multiplied many times around the country. Local power plants were already fragile due to the depredations of age, neglect by the Saddamist regime and the United Nations sanctions that had prevented all 'dual use' technology from being imported into the country. After the occupation began, the plant managers found it difficult to obtain even the most elementary maintenance supplies and replacement parts for turbines and other important equipment (not only from boycotted countries, mainly Germany, France and Russia, but also non-boycotted countries, for example, Japan) (Docena, December 2003; Chatterjee, 2004, ch. 2, esp. pp. 61–69). As a consequence, each passing month saw more equipment fail and ambitious contracts issued to completely modernize the plants. The subsequent failure of American contractors to complete the replacement left the Iraqis in an even more dependent state, since they were not qualified to repair the newly installed malfunctioning equipment, even if the parts were available.

The failure of American companies to either repair or replace existing electrical facilities was so endemic that it creates the impression the occupation could not compel adequate work from any contractor. This, however, is only partly true. There are symptomatic exceptions to this dreary track record that make it clear that these failures were focused in certain realms, and that some projects were completed on time and without

the sort of inefficiency that plagued most reconstruction. As Pratap Chatterjee commented:

> 'Certain infrastructure repair projects did get more than empty promises—the dredging of the Umm Qasr seaport and the Baghdad airport got top priority. These projects were quickly executed because the military needed to bring in equipment for the occupation. And within weeks in the spring of 2003, mobile phone towers had sprung up to provide MCI service to American officials and their appointed Iraqi advisors.' (Chatterjee, 2004, pp. 68–69)

This efficiency did not, however, extend to any part of the electrical system. In April 2006, with virtually all of the electrical work commissioned and the end of the projects only a few months away, electrical generation stood at 3600 megawatts, about 300 megawatts below prewar levels, and about 40 percent below the 6000 megawatt level the USA had promised to deliver by July 2004 (Brookings Institution, May 2006, p. 31). Electrical power—virtually continuous in Baghdad before the war—was down to four to eight hours per day; some neighborhoods had as little as one hour per day.[54] By summer 2006, demand was expected to exceed 10,000 megawatts, about double the most optimistic projections for increased capacity, and almost triple the actual generation during the spring (Hernandez, May 2006).

The electrical reconstruction projects were replete with the same sort of corruption and inefficiency that characterized the Al Fatah oil pipeline project.[55] In early 2006, the Iraqi electricity minister, Mohsen Shlash, declared that 'some of the work carried out was worth just one-tenth of the money being spent'. Shlash estimated that $20 billion would be needed to repair the system, nearly twice the original estimate (Haynes, January 2006). At almost exactly that moment, the Bush administration announced that there would be no further US investment in electrical reconstruction (Finer, January 2006). With the ongoing war eating away at existing capacity and the number of new projects dwindling, this promised drastic declines both in capacity and in hours of available power per day.

From the perspective of the long-term prospects for Iraqi reconstruction, before or after the fighting ended, the most important aspect of this process was its potentially irreversible impact on Iraq's ability to produce and manage its own power, a consequence of the lock-in effect of the American-managed construction. This point was made forcefully by the US Government Accountability Office in its February 2006 report to the US Senate:

> 'In the electricity sector, the Iraqis' capacity to operate and maintain the power plant infrastructure and equipment provided by the United States remains a challenge at both the plant and ministry levels. As a result, the infrastructure and equipment remain at risk of damage following their transfer to the Iraqis. In our interviews with Iraqi power plant officials from 13 locations throughout Iraq, the officials stated that their training did not adequately prepare them to operate and maintain the new U.S.-provided gas turbine engines. Due to limited access to natural gas, some Iraqi power plants are using low-grade oil to fuel their natural gas combustion engines. The use of oil-based fuels, without adequate equipment modification and fuel treatment, decreases the power output of the turbines by up to 50 percent, requires three times more maintenance, and could result in equipment failure and damage that significantly reduces the life of the equipment, according to U.S. and Iraqi power plant officials. U.S. officials have acknowledged that more needs to be done to train plant operators and ensure that advisory services are provided after the turnover date. In January 2006, [The Department of] State reported that it has developed a strategy with the Ministry of Electricity to focus on rehabilitation and sustainment of electricity assets.
>
> The working group reported that a number of critical infrastructure facilities constructed or rehabilitated under U.S. funding have failed, will fail, or will operate in

> suboptimized conditions following handover to the Iraqis.' (USGAO, February 2006)

It is important to underscore the source of Iraqi incompetence in these situations. The prewar electrical system had been sustained under the most deprived circumstances by a cadre of state-employed professionals. After the Gulf War in 1991, they restored service in a few months, though the electrical grid had been a focused target of an extensive US bombing campaign, one that far exceeded in firepower and destructive impact the 'shock and awe' campaign before the US invasion in 2003. These technicians—and the equipment they had maintained, repaired and modified—were a valuable but fragile resource in exactly the same way that the industrial district around Baiji was a valuable but fragile resource.

Though the war damaged these resources, it did not destroy them. As long as the Iraqi engineers and mechanics were available, as long as they could obtain needed parts and supplies, and as long as the machinery in their care fit into their area of expertise, Iraq itself would have the potential to revive its electrical grid and eventually improve and even modernize it.

But the American reconstruction policy was antithetical to preserving this valuable resource. It was not just that American antagonism to socialism led the CPA to demobilize the cadres of Iraqi technicians employed by the government. Privatization that moved state-owned enterprises into the private sector might have preserved the organizational framework which coordinated their skills, and therefore prevented the dispersal of the expertise needed to address the electrical and infrastructural problems.

But US policy called for the integration of Iraq into the global economy, by hiring MNCs for all major infrastructural repairs, and that meant avoiding Iraqi expertise, public or private. Very few of the technicians and engineers utilized on large electrical projects that were commissioned to revive the Iraqi electrical grid were even Iraqi.[56] Instead, the American companies used American technicians as experts and low priced South Asians as the major workforce. This followed the neo-liberal template of degrading the value of labor while increasing the dependency of the host nation for both imported equipment and technical expertise. Here, again, we see the outline of accumulation by dispossession, as the infrastructural wealth of Iraq was transferred to MNCs.

This explains why occupation did not seek to privatize Iraqi state-owned companies as intact enterprises. If the contracting firms had chosen to repair existing structures and/or replace them with mechanically compatible systems, they could have preserved the value of the expertise of Iraqi technicians and engineers, even if they did not work on the initial installation.

Such a strategy was simply incompatible with the approach taken by KBR, Parsons and the other American firms in charge of the reconstruction. They sought to introduce their own proprietary methods and technologies, not only because they knew them well and judged them superior. They were incented by the cost-plus, no-bid contracts to undertake the most ambitious projects, so that wholesale replacement became preferable to repairing and upgrading existing equipment, particularly when it could be justified as more efficient.

They also sought long-term supplier and maintenance relationships in this promising new market, and such relationships could be best guaranteed by utilizing materials and technologies to which they had privileged access. By rendering Iraqi expertise obsolete, therefore, KBR and other MNCs made Iraq dependent upon them for the foreseeable future, at least until a new generation of experts were trained in the newly introduced technologies. All in all, the entire thrust of the reconstruction process was to replace the existing equipment and degrade the human capital that constituted the Iraqi prewar infrastructure.

The place of these policies in the broader process of accumulation by dispossession can

be seen by the treatment accorded Iraqi technicians by the MNCs in charge of reconstruction. Bechtel and other American companies could have decided to employ Iraqi technicians in the reconstruction contracts, either retraining them for the new technology or adapting the work to fit into their already existing expertise. But this policy would have meant paying the high wages this expertise would command, and face the power of their ability to make the sort of collective demands that all well-organized and vital sectors inevitably make.

Accumulation by dispossession requires that this power be broken and the expensive claims its possessors make be drastically reduced. The new technology introduced in the electrical industry and elsewhere in Iraq accomplished this dispossession by utilizing alien technologies and by using imported labor from South Asia, which could be purchased at drastically lower wages. It then had the added bonus of contributing to the 30–60 percent levels of Iraqi unemployment, creating a large pool of desperate unemployed workers, and thus dramatically drop the wages demanded by Iraqis, even those with highly marketable skills. It is no accident, therefore, that during that first year, when these critical choices were made, the *Washington Post* reported that only '15,000 Iraqis have been hired to work on projects funded by $18.6 billion in U.S. aid, despite promises to use the money to employ at least 250,000 Iraqis' (Chandrasekaran, June 2004).

In this circumstance, the legion of failed reconstruction projects contributed to the process of accumulation. As Harvey argued, when 'valuable assets are thrown out of circulation and devalued … they lay fallow and dormant until surplus capital seizes upon them to breath new life into capital accumulation' (2003, p. 151). In the new Iraqi reality, electrical capacity could remain idle—for example, wrecked turbines could remain unrepaired—until and unless Bechtel or some other major investor saw the opportunity for profitable investment. At that time, the idle capacity could be acquired at distressed prices and/or fixed for far less than it would cost to build them anew, using desperate labor available at fractions of the pay that would have been demanded by the skilled Iraqi technicians who originally maintained the plants. The longer the period of idleness, the more profitable the new investment would become. In the meantime, people in the affected area endured an economic calamity.

This strategy was most visible in the installation of gas turbines, mentioned in the GAO report quoted above.[57] Since Iraq had little capacity to transport and utilize natural gas, the installation of 26 such turbines in various locations around the country created an immediate crisis. Only seven could be supplied with gas, and the US Army Corps of Engineers, under pressure to increase electrical capacity, reconfigured the rest to accommodate a 'a tarry byproduct of Iraq's primitive refineries … [that] decreased generation capacity [by 50 percent] and increased maintenance'. Of course, Iraqi technicians were incompetent to manage these alien systems, and the American experts were nowhere to be found. Only a few months later, *Los Angeles Times* reporter T. Christian Miller reported that the gerry-rigged system 'has wreaked havoc on the natural gas generators. One turbine installed by the US at a cost of $40 million at the Baiji power complex in north-central Iraq already needs replacement' (Miller, December 2005).

This incident illustrates the destructive impact of introducing new technologies that are not complementary to existing expertise or infrastructure. Beyond the immediate debacle, the gas turbine generators required the Iraqis to develop expertise in operating such turbines and then to reconfigure their energy system to deliver natural gas. Given the impossibility of such wholesale changes, the short-term disaster—operating inefficiencies, increased maintenance and equipment failure—was an inevitable (and foreseeable) consequence. This incident stands as a symptom of the long-term dynamic in the Iraqi electrical system.

The CPA contributed to this, not only by sanctioning the entire process, but by specific policies that embraced the strategy of wholesale replacement of Iraqi equipment and expertise; and it therefore made it even more difficult for Iraqis or others to undertake alternate paths. In the Al Fatah pipeline project, the CPA chose not to repair the bridge that would have, in the short term, facilitated a seamless repair of the pipeline and, in the long term, allowed Iraqi technicians to maintain both the bridge and the pipeline. This was not a monetary decision, since the later allocation of the whole bridge-and-pipeline budget for repairing only the pipeline demonstrates. This was, instead, a choice for a 'more modern' system, one that would also integrate Iraq into the global economy.

Yet another symptom of Coalition support for this policy of fostering dependency was President Bush's announcement soon after the fall of the Saddam regime that no corporations from countries that had opposed the US invasion could become major contractors in Iraqi reconstruction.[58] The hidden implication of this policy lay in the fact that most of the Iraqi infrastructure was built by European firms, many of them from France, Germany and Russia the three major European opponents of the invasion. This policy, therefore, guaranteed that no contractors who were wedded to existing technology would be allowed to bid for reconstruction contracts, and that the firms that won the contracts would have an incentive to replace existing systems with their own proprietary technology, and thus deprive French and German competitors with any leverage over future contracts. This policy had an immediate impact on the Iraqi infrastructure, as illustrated in the case of the Najibiya power station, because the unavailability of European replacement parts caused further degradation of existing structures (Docena, December 2003).[59]

Given this set of dynamics, even the most successful reconstruction projects could produce a decline in the viability of the Iraqi infrastructure and a measurable decrease in services to the Iraqi people. The process of replacing existing capacity with new technologies incompatible with existing infrastructure could, by itself, produce a decline in service, while dispersing and degrading the valuable expertise of Iraqi engineers and technicians. When this destructive process was combined with inefficiency and corruption, the net result was a devolution toward a non-viable infrastructure, even without the ongoing destruction of the war. In those areas where the violence of the war was added to the mix, the degradation process accelerated exponentially.

The ebb tide for clean water

Sanitation systems, which had never been adequate, were further damaged by the war.[60] In the initial fighting, though the Americans did not target water and sewage treatment plants, the 2000 pound bombs used by the USA on other targets demolished underground sewer lines, releasing sewage into the street, the ground water and the country's two main rivers.[61] Because of these added jolts to the over-stressed, deteriorating waste system, the streets of many cities were inundated with health-threatening garbage (Jamail, January 2005), and the electrical outages prevented the treatment plants from even beginning to remedy the problem.

The initial posture of the occupation appeared to recognize the urgency of the problem, and the $680 million water reconstruction contract, given to Bechtel on a limited-bid, cost-plus basis just after the fall of the Hussein regime, contained a clause calling for the most urgent work to be completed in six months:

> 'Within the first 6 months the contractor will repair or rehabilitate crucial water treatment, pumping and distribution systems in 15 urban areas. Within 12 months potable water supplies will be restored to all urban centers.' (Jamail, April 2004, p. 3)

During the next year, the US occupation promised to allocate a total of $4.6 billion for water and sewage reconstruction, with the bulk going to Bechtel Corporation even though it failed to fulfill any significant part of this first contract (USGAO, September 2005). As with electricity, much of the allocation was frittered away in inefficiency and corruption.

It is not surprising, therefore, that water and sewage systems continued to degenerate, even in those cities that did not suffer war damage. By late 2005, the number of people served by sewers had declined by 25 percent compared to the prewar levels of 6.2 million, and those served by adequate water treatment systems had declined by over two-thirds, from 3 million to 1.1 million. In an August 2005 poll, when Iraqis were asked how often they had 'safe, clean water' 71 percent of the respondents said 'never' (Brookings Institution, May 2006, pp. 41, 50).

Unprocessed filth contaminated the rivers and the underground water supply, rendering ineffective what water-purification systems were still functional, and creating threats to public health all along the Tigris and Euphrates rivers, even in downstream areas where there had been little actual fighting.[62] Outbreaks of filth-borne diseases like cholera became commonplace.[63]

In the meantime, 44 percent of the original $4.6 billion allocation was reallocated away from water and sewage infrastructure (USGAO, September 2006, p. 7). As Stuart Bowen, the Special Inspector General for Iraq Reconstruction, reported to Congress in early 2005:

> 'Initial plans to rehabilitate large portions of the country's water and wastewater system through the IRRF have been curtailed.… Water resources and sanitation sector funds have been reallocated to security, governance, debt relief and efforts to boost Iraqi employment opportunities.' (Bowen, 2005; quoted in Harriman, July 2005)

In early 2006, the US military commander in Iraq, Lt. Gen. Peter Chiarelli, acknowledged that 'only about a quarter of the nation' had 'drinkable water'.[64] About the same time, US occupation authorities announced that no more than 40 percent of the already curtailed water-purification program would be completed, and that no further projects would be initiated. Bechtel estimated that the true cost of water reconstruction would be $16 billion, more than three times the original estimate, and more than five times the actual allocation (Chatterjee, 2004, p. 82).

This negative dynamic reflected further degradation of the existing system, even in the most insulated cities. In Hilla, a relatively untouched Shia city south of Baghdad, the aging water plant—which successfully supplied the local area's needs during the war without interruption—'needed to replace old pipes and pumps' within six months to forestall serious damage and more extensive repairs.[65] However, no repairs at all took place; no supplies were shipped to allow local technicians to perform the repairs (which they had done for years); and no budget was given to the plant to perform its own repairs. Wear and tear, combined with the failing electrical system, hobbled the plant, and made it an easy target for looters, who inflicted permanent damage to the idled machinery. By spring of 2004, when the journalist Pratap Chatterjee interviewed Chief Engineer Salmam Hassan Kadel, the plant may have passed the point of no return:

> 'Despite help from UNICEF, Red Cross, and several nonprofits, the plant was only supplying 50 percent of the needed water to the people of Hilla.
>
> By Spring 2004 the surrounding villages had no water, nor had they been supplied with the pipes they needed to get work done. Kadel reported that his plant has had no contact with Bechtel, or any of its subcontractors, despite complaints of massive outbreaks of cholera, diarrhea, nausea, and kidney stones in his area.' (Chatterjee, 2004, pp. 81–82)

As with electrical power, where new systems were installed, they degraded Iraqi

expertise because American MNCs chose incompatible replacement equipment. The US Government Accountability Office repeatedly raised these problems in its testimony before the Congress:

> 'As of June 2005, approximately $52 million of the $200 million in completed large-scale water and sanitation projects either were not operating or were operating at lower capacity due to looting of key equipment and shortages of reliable power, trained Iraqi staff, and required chemicals and supplies. For example, one repaired wastewater plant was partially shut down due to the looting of key electrical equipment and repaired water plants in one southern governorate lacked adequate electricity and necessary water treatment chemicals. In addition two projects lacked a reliable power supply, one lacked sufficient staff to operate properly, and one lacked both adequate staff and power supplies.' (USGAO, October 2006)

> 'In the water and sanitation sector, U.S. agencies have identified limitations in Iraq's capacity to maintain and operate reconstructed facilities, including problems with staffing, unreliable power to run treatment plants, insufficient spare parts, and poor operations and maintenance procedures.[Footnote 16] The U.S. embassy in Baghdad stated that it was moving from the previous model of building and turning over projects to Iraqi management toward a "build-train-turnover" system to protect the U.S. investment. However, these efforts are just beginning, and it is unclear whether the Iraqis will be able to maintain and operate completed projects and the more than $1 billion in additional large-scale water and sanitation projects expected to be completed through 2008.' (USGAO, February 2006)[66]

We see here another element in the downward spiral: the omnipresent looting and the criminal gangs that organized it. In this case, even without active fighting, a wastewater plant was wrecked because criminal gangs had stripped it of machinery and metal products that could be resold inside or outside the country, creating the same sort of destruction that the war itself generates, even in (and particularly in) locations where there was no active fighting.

But this additional vector for decline operates only in the vacuum created by the larger dynamic: the failure of these reconstruction projects to be integrated into the Iraqi infrastructure. Looting took place in idled and abandoned factories; and this idleness was a consequence of the horrible mismatch between the existing Iraqi infrastructure and American new construction. In the GAO report quoted above, we see ample evidence of this: lack of a power supply in new facilities; lack of expertise to run new facilities, and insufficient spare parts.[67]

All these reflect the larger American policy of demobilizing existing Iraqi resources, a part of accumulation by dispossession. The lack of 'adequate electricity and necessary water treatment chemicals', for example, reflects the disinterest of American contractors (and the US occupation) of fitting the new construction into existing capabilities; they located their new plant in a location where no existing electrical facilities could service it (requiring further new or replacement work to be functional) and then utilized a technology that required chemicals that were not readily available within Iraq. In the Iraqi context, this profit-seeking maneuver did not produce new business for the initial contractor (to build power facilities and supply chemicals); instead it left the sewage treatment facilities idle until they either decayed or were looted and made unworkable. But this result was not a problem for the American contractors, who collected the full amount for their initial work. If new work was ever commissioned in these plants, they would hold the inside track, since they were most familiar with the system and the technology involved.

Speaking to the *Washington Post* about the reconstruction as a whole, one of Bremer's senior advisors summarized the overarching impact of these projects:

> 'This was supposed to be our big effort to help them—18 billion of our tax dollars to fix their country.… But the sad reality is that this program won't have a lot of impact in it for the Iraqis. The primary beneficiaries will be American companies.'

The prognosis is poor in health care

The health care system, once the best in the Middle East, was already suffering before the war began.[68] While few hospitals were damaged in the initial American offensive, neither were they rejuvenated after the fall of the Saddamist regime. With the rise of the resistance, however, many facilities in embattled cities were damaged or destroyed by US artillery and air attacks aimed at preventing guerrilla fighters from obtaining medical care. In late 2005, for example, when Ramadi was the site of major fighting, a local hospital administrator told independent reporter Dahr Jamail that the two main hospitals were 'raided regularly by the U.S. military':

> '"The maternity hospital and the general hospital in our city are the two biggest hospitals," the official said. "These have both been raided twice a week by the American forces with the excuse that they are searching for militants. They [the U.S. soldiers] break every door which is closed, play with our records and sometimes even detain some of our staff. The Americans are not adhering to any laws."'[69]

Those facilities that were spared from the violence suffered from overwhelming workloads, broken equipment and severe shortages of drugs (Jamail, June 2005).

Meanwhile, reconstruction in health care also exhibited the negative processes found in other sectors. 'The most important program in the health sector', a $243 million no-bid contract awarded to the multinational Parsons Corporation, flashed into the headlines in early 2006 when a US government investigation found that only six of 150 planned medical clinics had been completed by the due date, and that 14 others *might* be completed. The investigation found that 'remedial actions were unable to salvage the overall program' and that the remaining 130 facilities would never become functional (Glanz, 30 April 2006). Parsons suffered few sanctions, as the contract had already been 'terminated by consensus, not for cause' in January 2006 (Knickmeyer, May 2006). As it turned out, Parsons was not even under a binding contract to finish the 14 centers that remained candidates for completion: the negotiated settlement only called for Parsons to '*try* to finish 14 more clinics by early April [2006] and then leave the project' (Knickmeyer, May 2006).

As for the rest of the American occupation's original $786 million commitment to reconstructing the Iraqi health system, Baghdad's Medical City, one of the principle hospital centers in the country, appears to be a typical case. Dr Hammad Hussein told independent reporter Dahr Jamail in late 2004:

> 'I have not seen anything which indicates any rebuilding aside from our new pink and blue colors here where our building and the escape ladders were painted.… What this largest medical complex in Iraq lacks is medicines. I'll prescribe medication and the pharmacy simply does not have it to give to the patient. [The hospital is] short of wheelchairs, half the lifts are broken, and the family members of patients are being forced to work as nurses because of shortage of medical personnel.' (Jamail, December 2004)

A year later, Jamail reported that these conditions had not improved:

> 'Dr. Abdul Qader who works at Ramadi General Hospital, told IPS that the critical care unit there lacked monitors, the CT scan was broken, and many other instruments were not working. Such problems are now common around the province, both doctors said.
>
> "In addition to lacking electricity, we often lack fuel deliveries for our generators," said Dr. Qader. "Our machines often break

> down, which puts our patients in very critical situations."
>
> Similar problems have been evident in Baghdad since last year. "We had a power outage while someone was undergoing surgery in the operating room," Ahlan Bar, manager of nurses at the Yarmouk Teaching Hospital in Baghdad told IPS. "He died on the table because we had no power for our instruments."
>
> The health official said ongoing attacks by militants could provoke U.S. forces to detain more doctors. "We have only 40 percent of staff we need to operate effectively," he said. "Even now, we don't have a specialist in anaesthesia, so this is being handled by the nursing staff. Most medical staff now are too afraid to work in our province."
>
> The doctors expressed frustration at the U.S.-imposed curfew which begins at 7 pm daily. Health services at Ramadi General Hospital end at 5 pm so that medical staff can be home before the curfew begins.' (Jamail, 29 November 2005)

In early 2006, Ammar al-Saffar, the Iraqi Health Ministry's second in command, told the World Bank:

> '"Over the next four years, we need $7 to $8 billion just for reconstruction. This does not include the operational budget." He warned, however, that Iraqi coffers alone were incapable of funding such an investment. "We are looking here and there for donations from the international community."' (World Bank, January 2006)

We can see from these accounts the elements of the same downward spiral that engulfed the rest of the Iraqi infrastructure; but they underscore a key irreversible element: the loss of precious professional and technical expertise. At Ramadi, for example, the hospital was functioning with only 40 percent of needed staff, and without an anesthesiologist in the operating room.

This reflected a broader trend. Medical professionals—with credentials that made them welcome all over the Middle East—were fleeing the failing system, the violence of the war and the predatory kidnapping of outlaw gangs. Large numbers have left facilities where degraded or dangerous conditions made their efforts unproductive; many of these are abandoning cities where fighting and kidnapping made it dangerous or impossible to practice; and finally, a huge proportion of these in-country professional refugees are leaving the country. By mid-2006, an estimated 12,000 of the 34,000 Iraqi doctors had left Iraq (Brookings Institution, May 2006, p. 40).

And this, in turn, reflected a still broader trend, as a flood of exiles left the country, taking with them a substantial portion of the country's human capital—any professional and technical expertise that could be marketed elsewhere. Partly the departures reflected the various deadly possibilities that the war generated; partly they reflected the unrestrained attacks of criminal gangs against families with the money to pay ransom; and partly they reflected the degraded state of the economy that prevented individuals and families from sustaining their livelihood. The horror of this exodus was eloquently expressed by Iraqi blogger AnaRki13:

> 'Not so much a migration as a forced exodus. Scientists, engineers, doctors, architects, writers, poets, you name it—everybody is getting out of town.
>
> Why? Simple: 1. There is no real job market in Iraq. 2. Even if you have a good job, chances are good you'll get kidnapped or killed. It's just not worth it staying here. Sunni, Shiite, or Christian—everybody, we're all leaving, or have already left.
>
> One of my friends keeps berating me about how I should love this country, the land of my ancestors, where I was born and raised; how I should be grateful and return to the place that gave me everything. I always tell him the same thing: "Iraq, as you and me once knew it, is lost. What's left of it, I don't want."
>
> I know so many families (all or in part) that have left, prepared to leave, or want to leave.

> Staying equals danger: Kidnappings, threats, and, for some, persecution.…
>
> The most famous doctors and university professors have already left the country because many of them, including ones I knew personally, were assassinated or killed, and the rest got the message—and got themselves jobs in the west, where they were received warmly and given high positions. Other millions of Iraqis, just ordinary Iraqis, left and are leaving—without plans and with much hope.'[70]

The exact totals were difficult to determine, but even the most circumspect observers reported accelerating rates of emigration, far outstripping the very considerable flood of refugees during the Saddam era. By mid-2006, the UN estimated that 2.7 million Iraqis were living outside the country, including 1.7 million who had left in the three years since the invasion. A more refined survey, conducted by the United States Committee for Refugees and Immigrants (a nongovernmental group based in Washington) reported a total of 889,000 who considered themselves refugees (and who had left since the invasion). The flood of refugees was following a steep upward trajectory: in 2005 the number had more than doubled (Tavernise, June 2006).

These refugees represent precious human capital: the USCRI report estimated that 40 percent of Iraqi's professional class had left the country, taking with them their irreplaceable expertise (Lobe, June 2006).

This represents the most irreversible of the locked-in effects of the downward spiral in Iraq. While many exiles intend to return when and if the situation improves, time is always the enemy of such intentions. The moment an individual arrives in a new country, they begin creating social ties that become more significant as they settle into their new life. If their family is with them, the principle force for return is significantly weakened, and the new ties grow more quickly and become more powerful when they include family. Unless there is a disruption of this building process, the probability of return fades with each passing month and year.

The degradation of Iraq under the occupation regime set in motion the forces for the exile of the country's precious stock of human capital. As the situation matured into chaos and economic decline, the flow of emigrants became more forceful, carrying with it the professional and technical personnel who could have helped to reconstruct the electrical, sewage and hospital systems, as well as all the other infrastructural elements that made up the foundation of a viable society. Their departure took with them a critical resource for reconstruction, helping to lock-in the downward spiral toward a nation of slum cities.

Even this, the most human of the economic disasters that plagued Iraq under the weight of the American occupation, has its positive function for the neo-liberal project. The Iraqi medical system in the 1980s—when it was the most advanced in the Middle East—was an expensive state-funded social program paid for with large amounts of oil revenues. Its decline, which began during the Iran–Iraq war and accelerated with the imposition of UN sanctions, and accelerated yet again with the arrival of the American occupation, has been accompanied by a drastic decline in its cost. Its decline represents a drastic cut in government expenses, and the departure of its professional staff has removed the most powerful and insistent force for its revival. Oil revenues previously dedicated to medical care can now be diverted to corporate tax cuts and/or projects that nurture private investment and other corporate ventures. Just as neo-liberalism in the USA and other industrial countries has taken the form of cuts in government spending, so now the same logic applies in Iraq.

Bechtel gets failing grades in educational reconstruction

One area that could be seen as a remedy for all that ailed Iraqi society was education,

where a new generation of professional and technical personnel could be trained in the technologies that were being introduced by the occupation regime. Such a vision certainly informed the initial promises of the American leadership, but the hopes for it being fulfilled quickly faded as the reality of occupation policy took hold.

The educational failures of Iraqi education under Saddam were manifold, both in terms of the ideological content of the schools and in terms of their isolation from educational and scientific advances in the rest of the world.[71] The ascension of the CPA was accompanied by multiple promises of an educational renaissance, and at first these promises were positively reflected in the rebirth of dissenting intellectual communities and the explosion of newspapers and other periodicals advocating the full range of political and social viewpoints.[72] However, already at the beginning of the occupation, even before the resistance began to gain traction, the physical degradation of the schools began to gather momentum.[73]

For any occupation army, schools are tempting locations for short- or medium-term housing: they have many rooms for headquarters and barracks, open spaces for parking vehicles and mustering soldiers, and are separated from surrounding communities by walls, fences and natural barriers that can be used as defensive perimeters. In Iraq these illegal temptations were, at least sometimes, too much for the US military and its allies to resist, and hundreds became the temporary and even permanent home for military units as they occupied and attempted to pacify various Iraqi cities, mainly in the Sunni areas around Baghdad and to the north and west of the capital. The fierce anti-American resistance in the city of Falluja actually began when American soldiers fired on a protest against such an occupation (Blair, April 2003).[74]

Besides generating ferocious anger among residents of these communities, these occupations caused considerable damage that required repair before the schools could become functional again. For $50 million, the ubiquitous Bechtel Group was contracted in summer 2003 to 'provide a "quick fix" in preparing for a new school year', repairing war damage and reversing the accumulated degradation endured by the schools since the first Gulf War (Kaplow, December 2003). By early fall, Bechtel had published a list of 1595 'rehabilitated' schools, but visits by *Newsweek* reporters to five Baghdad schools listed as 'rebuilt' found that 'none had enough textbooks, desks or blackboards. Most had refuse everywhere, nonfunctioning toilets and desks made for two kids that were accommodating four' (*Newsweek*, December 2003). When independent reporters Pratap Chatterjee and Herbert Docena set out to inspect four of the rehabilitated schools in the Shia south, away from the growing Sunni insurrection, they found virtually unusable facilities inhabited by bitter educators whose anger toward the occupation had grown exponentially in the few months since the fall of the Hussein regime (Chatterjee and Docena, 2003).

Their inspection of one of these schools managed to capture, in all one site, the full range of inefficiency, corruption and deconstruction that has characterized the US economic impact on Iraq:

> 'This is Hawa school, run by Batool Mahdi Hussain. Hussain is a tall woman, dressed all in brown, including her traditional Islamic headscarf. She appears young for the 11 years she has spent at this school, which she recently took over when the parents voted her in as headmistress after the war. Like the two previous headmistresses [at other schools they visited], she is eager to talk and show us around.
>
> She is also bitter about the contractors. The school has a fresh coat of paint on the outside with all of the characters from the Disney version of Aladdin, complete with the genie and the prince.
>
> But, she says, things are worse than under Saddam. "UNICEF painted our walls and gave us new Japanese fans. They painted the cartoons outside. When the American

> contractors came, they took away our Japanese fans and replaced them with Syrian fans that don't work," she says angrily.
>
> We are joined by the school guard, Ali Sekran, who speaks a few words of English. He repeatedly uses his AK-47 as a pointer to help Hussain illustrate all the problems. We pray that the gun isn't loaded.
>
> The headmistress takes us to the toilets where a new water system has been installed, pipes, taps and a motor to pump the water. The problem is the motor doesn't work so the toilets reek with unflushed sewage. She then uncovers a new drain cover to show us that it is nothing but a cover. She walks quickly, not waiting for the camera to catch up, a whirlwind of show-and-tell. "These doors, the hinges are broken. We were supposed to get steel doors, we got wooden doors. The new paint is peeling off. There isn't enough power to run our school."
>
> We notice a brand new blackboard. Hussain says that the teachers paid for it out of their own pocket. As we bid farewell, she walks us out of the gate and points to the construction debris in the road.
>
> "They didn't even take their rubbish with them. They gave us no papers to tell us what they had done and what they did not do. We had to pay to haul the trash. Honestly, the condition of our school was better before the contractors came."' (Chatterjee and Docena, 2003)

Other 'fully reconstructed' schools exhibited similar problems. The Al-Harthia school administrator Huda Sabah Abdurasiq spoke for many other educators when she commented bitterly: 'I could fix everything here for just $1,000. Mr. Jeff [the Bechtel sub-contractor] spent $20,000', and left the school with leaking ceilings, shorted power, peeling paint and a "repaired" floor that was worse than when the reconstruction began.[75]

Ultimately, like other infrastructural projects, the schools were set on a downward trajectory by Bechtel and its subcontractors. The continued depredations of contractors sporadically assigned to repair ongoing damage, sustained this downward spiral during the next two years, even in cities and towns where little or no fighting took place.

But even more significant was the provision of such items as the new water pump that did not work, but which could no longer be fixed or maintained by local technicians, the power source that did not generate enough electricity to run the school and—most of all—the continuing negative conditions that led many teachers and other professionals to flee the school, the city and the country. In the schools, as in the rest of Iraqi society, the process of degradation was being locked in place by irreversible changes wrought by the process of deconstruction.

Deconstruction, not reconstruction

Perhaps the most telling indicator of the trajectory of change for the Iraqi infrastructure occurred in the middle of 2006, when descriptions of the elaborate embassy that the USA was constructing in Baghdad began to appear in the press. Referred to as 'George W.'s palace' by Baghdad residents (McGrory, 3 May 2006) the $592 million structure was described by the *The Times* as 'the biggest embassy on earth'. It featured:

> 'impressive residences for the Ambassador and his deputy, six apartments for senior officials, and two huge office blocks for 8,000 staff to work in. There will be what is rumoured to be the biggest swimming pool in Iraq, a state-of-the-art gymnasium, a cinema, restaurants offering delicacies from favourite US food chains, tennis courts and a swish American Club for evening functions.' (McGrory, 3 May 2006)

Most germane to our concerns is this added element, mentioned in passing by the *The Times*: that the embassy would have *'its own power and water plants'* and thus would be insulated from the outages and pollution suffered by Baghdad's Iraqi residents. That is, American authorities, in preparing for

their new embassy, were not expecting the rejuvenation of any element in the Iraqi infrastructure in the foreseeable future.

This lack of confidence was certainly well placed. In all realms (except the American embassy), the pattern was approximately the same: first, the initial American invasion further damaged already weakened infrastructure in the cities. Second, inadequate reconstruction was proposed, and given to large foreign (usually American) corporations with an incentive to install ambitious new systems rather than repair or modify existing facilities. Third, the new construction was sabotaged by the contractors' programmatic inefficiency and corruption. Fourth, the new facilities—when and if they were completed—were incompatible with existing Iraqi technology and could not be maintained by Iraqi professionals or technicians. Fifth, Iraqi human and physical capital was dissipated as the old system was destroyed by the ongoing war or replaced by reconstruction, leaving the country without the resources to recover. Sixth, the downward spiral became irreversible as money ran out while new and old infrastructure failed under the weight of war, corruption and newly developed incompetence.

In January 2006, the USA announced that there would be no new US allocations for Iraqi reconstruction (Farrell, January 2006). A US official told the *The Times*:

> 'US reconstruction is basically aiming for completion (this) year. No one ever intended for outside assistance to continue indefinitely, but rather to create conditions where the Iraqi economy can use reconstruction of essential services to get going on its own.'

The *Los Angeles Times*, in reporting the same announcement, elaborated on American logic:

> 'The $18.6 billion approved by Congress in 2003 will be spent by the end of this year, officials here say. Foreign governments have given only a fraction of the billions they pledged two years ago.
>
> With the country still a shambles, U.S. officials are promoting a tough-love vision of reconstruction that puts the burden on the Iraqi people.
>
> "The world is a competitive place," Tom Delare, economics counselor at the U.S. Embassy, said this month during a news briefing. "You have to convince the investor that it is worth his while to put his money in your community."' (Smith and Daragahi, January 2006)

The comment placed in bold relief the overarching logic of the American presence in Iraq, encompassing both the destruction wrought by the war and the deconstruction wrought by American economic policy there. Iraq's economy had arrived at a point where it would 'have to convince the investor that it is worth his while to put his money' into Iraqi communities. The neoliberal project had reached its defining moment: Iraq's economic infrastructure would remain dormant unless and until the global financial community found profitable investment opportunities there; and then only those would receive the investment funds needed for reconstruction. The process of accumulation by dispossession had been fully enabled.

In early 2006, the US Department of Energy estimated that reconstruction would, in the long term, total '$100 billion or higher', fully $40 billion above the original UN estimate (Anderson and Sebti, April 2006). On the question of whether the Iraqi government could handle these costs alone, the *Financial Times* reported that depleted oil exports had already starved a desperately weak government and economy of needed funds. As a consequence 'most of the government's purchases are for short term needs' and therefore 'little cash has been available for Iraqi-funded reconstruction' (MacDonald, December 2005).

The denouement of this nexus of decline was to put Iraq—one of the richest countries in the world in terms of natural resources—under the receivership of the World Bank,

the International Monetary Fund and the World Trade Organization, the same triumvirate of institutions that supervised the neo-liberalization of Latin America and Africa, and the key forces in the creation of slum cities in those continents. In this connection, Matthew Rothschild, writing in the *Progressive*, reported this symptomatic bit of news:

> 'In December [2005], the International Monetary Fund, in exchange for giving a loan of $685 million to the Iraqi government, insisted that the Iraqis lift subsidies on the price of oil and open the economy to more private investment.
>
> As the IMF said in a press release of December 23, the Iraqi government must be committed to "controlling the wage and pensions bill, reducing subsidies on petroleum products, and expanding the participation of the private sector in the domestic market for petroleum products."' (Rothschild, January 2006)

These measures were imposed on the Iraq government as the strategy for attracting—through private investment—the $100 billion needed to reconstruct the economy. The fruitlessness of this enterprise is apparent to the naked eye, given the past three decades of the neo-liberal project. But, with this negotiation, Iraq joined the company of dependent economies, unable to engineer their own prosperity, and therefore subject to international financial discipline. This, then, was the moment when the dynamics of the Iraqi war melded into the dynamics of neo-liberal reform. The rest of the route to economic peripheralization and slum cities was well marked.

Notes

1 Quoted in Smith (2005, p. 53).

2 For a lucid discussion of the trajectory of neo-liberal reform as a global expression of American policy, see Harvey (2003, 2005) and Smith (2005). For discussions of the application of these broader policies to Iraq, see Roberts *et al.* (2003), Barnett (2004) and Klein (2004).

3 Graham (2005, p. 175). The internal quote is to Barnett (2004).

4 In support of these assertions, Davis cited Josef Gugler, 'Introduction—II. Rural–urban migration', in Gugler (ed.) *Cities in the Developing World: Issues, Theory and Policy*, Oxford, 1997, p. 43. He then commented: 'For a contrarian view that disputes generally accepted World Bank and UN data on continuing high rates of urbanization during the 1980s, see Deborah Potts, "Urban lives: Adopting new strategies and adapting rural links", in Carole Rakodi, ed., *The Urban Challenge in Africa: Growth and Management of Its Large Cities*, Tokyo 1997, pp. 463–73.'

5 Internal Davis footnote: 'David Simon, "Urbanization, globalization and economic crisis in Africa," in Rakodi, Urban Challenge, p. 95.'

6 Internal Davis footnote: 'See Josef Gugler, "Overurbanization Reconsidered", in Gugler, Cities in the Developing World, pp. 114–23. By contrast, the former command economies of the Soviet Union and Maoist China restricted in-migration to cities and thus tended toward "under-urbanization".'

7 Internal Davis footnote: '"Thus, it appears that for low income countries, a significant fall in urban incomes may not necessarily produce in the short term a decline in rural–urban migration." Nigel Harris, "Urbanization, Economic Development and Policy in Developing Countries", Habitat International, vol. 14, no. 4, 1990, p. 21–2.'

8 An earlier version of this discussion of American economic policy in Iraq was published on *Tom Dispatch* (Schwartz, 28 March 2006).

9 In this paper, I use the terms 'resistance' and 'insurgency' interchangeably, since that has become the established usage in reports of the war. Technically, the war in Iraq is between an occupying force and a 'resistance' in much the same way that the French organized a resistance to the Nazi occupation. Insurgency is properly used to designate a sustained insurrection against an established government that at some point was sovereign and accepted by the residents of the country. The American Revolution, for example, was an 'insurgency'.

10 For a persuasive example of this argument see Eaton (March 2006).

11 The best account of the early policies of the CPA can be found in Klein (2004). See also Docena (September 2005, March 2006) and Juhasz (2004, 2006). For a detailed discussion of oil policy, see Holland (May 2006).

12 On Russia, see Stiglitz (2000) and Kagarlitsky (2002). On Argentina, see Perry and Serven (2002) and Schamis (2002).

13 See below. For a vivid portrait of both the failure to reconstruct infrastructure and the angry reaction to it, see Al-Ali (2004).
14 Al-Araji and Khamas (2006). On education, see below and Al-Ali (2004) and *Al Jazeera* (28 May 2004).
15 The 60 percent figure was cited by Representative John Murtha, in a press conference discussing his call for withdrawal from Iraq (Murtha, 2005). See also Brookings Institution (May 2006, p. 32).
16 Baiji, the oil refinery center, is a typical example. See below and Tyson (2006).
17 Original quote can be found in Rizer (2001, pp. 10–11).
18 Colin Powell, who studied under Ullman, called him a 'rarity, a scholar in uniform, a line officer qualified for command at sea, also possessed of one of the best, most provocative minds I have ever encountered' (Correll, 2003).
19 Quoted in Mendieta (2006, p. 223). See also Ullman's influential book, *Shock and Awe* (Ullman and Wade, 1996).
20 CBS (24 January 2003). Quoted in Correll (November 2003).
21 Mendieta (2006, p. 224). Mendieta cites Paul Virilio as the source of this argument (Virilio, 2000, p. 15).
22 Quoted in Graham (2005, p. 177).
23 This account of initial US strategy is taken from Graham (2005, pp. 180–188) and Correll (November 2003).
24 *Washington Times* (31 March 2003), quoted in Correll (November 2003).
25 An earlier version of this analysis of the destruction of Falluja was published in Schwartz (14 January 2005). For a portrait of the battle from the point of view of the resistance, see Mehta (December 2004).
26 For a full description of the security system installed in Falluja, see Schwartz (December 2004, January 2005b).
27 These estimates are based on material from Schwartz (14 January 2005), Worth (December 2004) and Said (December 2004).
28 See also Whitney (April 2005), Tyson (April 2005) and North (April 2005).
29 This discussion is based on Jamail (24 November 2005); Jamail and Fadhil (25 June 2006).
30 The same logic that justified attacking 'dual use' infrastructure like electrical facilities, was also applied in Falluja and many other cities to various daily supplies. Necessary products, particularly tools and other metal products, were excluded at checkpoints, interfering with various reconstruction tasks and daily life.
31 For accounts of various US offensives, see Jamail (October 2005, 7 November 2005), Finer (September 2005), IRIN (October 2005).
32 Knickmeyer *et al.* (November, 2005).
33 This account of the war in Ramadi is based on Conley (June 2006), Jamail and Fadhil (22 June 2006) and Roug and Spiegel (May 2006).
34 Roug and Spiegel (May 2006). Zarqawi was not a leader of the Ramadi resistance; at best he was an uncomfortable ally. In early 2006, reports from Iraqi sources indicated that local resistance fighters had become active enemies of Zarqawi's terrorist organization; and *Al Hayat* newspaper on 26 January 2006, reported that 'Six armed groups belonging to "the Iraqi resistance" recently declared war on Zarqawi's "terrorist" organization … in order to expel them to Syria.' Quoted in Achcar (January 2006).
35 This account of the war in Baiji is based on information found in Conley and Rashid (February 2006), Knickmeyer and Aldin (January 2006), Lenz (January 2006), Tyson (January 2006), Poole (February 2006), Reuters (April 2006). An earlier version was published in Schwartz (12 March 2006).
36 Tyson (January 2006). For a lucid discussion of US plans to privatize all new oil development, see Holland (May 2006).
37 Some Iraqi government officials claimed that the national black market in oil added up to 'more than £10 billion a year in direct losses and missed opportunities' with the proceeds split among criminal gangs, local and national political leaders, and the resistance (Muir, April 2006).
38 During the Great Depression in the USA, for example, unemployed coal miners extracted coal from coal mines for their own use and for sale on the black market (Jones, 1993).
39 During the occupation, the same siphoning process was also a fixture in the southern oil hub, Basra (Tavernise and Mizher, June 2006).
40 Sections of this discussion on the impact of reconstruction were published in Schwartz (May 2006).
41 For an account of the geography of the fighting, see Schwartz (9 March 2006, 12 March 2006).
42 Exceptions were the 2004 war between the Sadrists and the Americans, concentrated in Najaf and the Sadr City suburb of Baghdad. See Schwartz (January 2005a) for a more detailed account of these battles.
43 There was episodic ferocious fighting in Maysan province from 2004 on, and during late spring 2006, Basra became a battleground between the British occupation and local Shia resistance fighters. See Schwartz (November 2005, 9 March 2006); Tavernise and Mizher (June 2006).
44 CSIS is a well-connected Washington, DC think tank with a mandate to 'advance global security and prosperity', populated by former high ranking government officials, and not given to criticism of government policy (http://www.csis.org/about/).

45 See, for example, Chatterjee and Docena (2003) and Buffa and Chatterjee (May 2005).
46 UNEP (2003), quoted in Kovel (2005); Brookings Institution (May 2006, p. 21).
47 For a detailed analysis of US intentions to integrate the Iraqi economy into the nexus of globalized capital, see Juhasz (2006). See also Holland (May 2006).
48 *Houston Chronicle* (29 April 2003), quoted in Chatterjee (2004, p. 48).
49 For a detailed discussion of the prevalence of these sorts of inefficient and counterproductive overspending deriving from cost-plus contracting, see Chatterjee (2004, pp. 25–60). See also Buffa and Chatterjee (May 2005) and Harriman (July 2005).
50 For most projects the only sanctioning system involved the sort of *ex post facto* (and therefore toothless) inspection conducted by Robert Sanders at the Al Fatah pipeline (Harriman, July 2005).
51 The amount of leftover oil revenues may have been as high as $20 billion, though much of it was allocated to other purposes besides reconstruction. A large portion of the funds were never accounted for by the CPA, which was given custodianship over them. For a detailed discussion of the oil revenues inherited from the Hussein regime, see Harriman (July 2005). For statistics on US allocations as well as pledges and actual payments from other countries, see Brookings Institution (May 2006, pp. 36–37).
52 For an eloquent argument that this descent was already approaching irreversibility in 2005, see Kovel (2005).
53 This account is taken from Chatterjee (2004, pp. 61–62) and Docena (December 2003).
54 Because of the destruction/construction cycle, the new capacity was often located in new sites. As a consequence of this, and of the redistribution of the power grid, many parts of Iraq that had had little or no electrical power before the war had increased service. Service in the nation as a whole had therefore increased slightly, while service in Baghdad, which was virtually continuous before the war, had degraded tremendously (Brookings Institution, May 2006; Glanz, February 2006; Hernandez, May 2006). Even in the most favored cities, however, the increased demand made actual availability to individual customers much lower.
55 Ali (December 2005); Harriman (July 2005); USGAO (February 2006).
56 For descriptions of how Iraqi professionals and technicians were left idled by American control of reconstruction, see Chatterjee (2004, pp. 48–52, 61–82).
57 This account is based on Miller (December 2005). See also, Bacon (February 2006).
58 Chatterjee and Docena (2003). Some months later, this policy was relaxed, but not before all the major contracts had been granted.
59 It should be noted that even when the original French, German or Russian firms were involved in the repairs, success was not guaranteed (Chandrasekaran, June 2004).
60 A good account of the prewar background and initial reconstruction efforts in water and sewage can be found in USGAO (September 2005).
61 According to the US Government Accountability Office, 'Operation Iraqi Freedom largely spared water and wastewater treatment plants; however, water networks were seriously damaged.' USGAO (September 2005, p. 7, n. 4).
62 Chatterjee (2004, pp. 80–84); Farrell (December 2005); Schwartz (November 2005).
63 For discussions of the health consequences of the collapse of the Iraqi sewage and water treatment systems, see Jamail (7 January 2005, June 2005), Kovel (2005), Juhasz (2004).
64 Rainey (May 2006). See also Brookings Institution (May 2006, p. 50) and Kovel (2005).
65 Chatterjee (2004, p. 81). This account is based on Chatterjee and on Jamail (April 2004).
66 The internal footnote is to another GAO report (USGAO, September 2005). See also Anderson and Sebti (April 2006).
67 See also Anderson and Sebti (April 2006).
68 This discussion of Iraqi health care is taken mainly from Jamail (June 2005).
69 Jamail (29 November 2005). For discussions of US attacks on health care facilities, see also Jamail (June 2005); Ali (December 2005); Al-Ali (July 2004); Schwartz (January 2005).
70 Quoted in Jarrar (March 2006). See also Alkhoja and Racknagel (August 2004) and McGrory (11 May 2006).
71 For an analysis of the decline of Iraqi education under Hussein that emphasizes the role the Gulf War in 1991 and (therefore) US culpability, and which describes recent events from the perspective of the Iraqi resistance, see Hassan (May 2005).
72 For a convincing portrait of this renaissance during the first months after the fall of the Saddamist regime, see the film *The Dreams of Sparrows* (Jaffar, 2005).
73 This discussion is based on Chatterjee and Docena (2003), Taylor (March 2003) and CESR (2004).
74 In Haditha, sight of a well-publicized controversy of the deaths of many civilian Iraqis at the hands of US marines, the base from which the marines operated was located in what *Los Angeles Times* reporter Rone Tempest described as 'an abandoned school' (Tempest, May 2006).
75 Chatterjee and Docena (2003). See also Kaplow (December 2003).

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