

The Vietnam Builders: Private Contractors, Military Construction and the 'Americanization' of United States Involvement in Vietnam

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AS EVEN THE most cursory glance at the daily newspapers reveals, United States (US) involvement in Iraq relies to a large extent on the efforts of private corporations. From rebuilding the water system and the electrical grid to providing security, food and housing for both Iraqis and Americans, private corporations are now a ubiquitous element of US foreign policy. Private corporations have actually played an increasing role in the conduct of US foreign policy in recent years. From Somalia to the crisis in the Balkans, the US government has relied more and more upon private corporations to achieve an array of short- and long-term foreign policy objectives.¹ The precedent for this expanded private corporate role was actually set decades ago as corporations took on an enlarged function, replacing military personnel, in the most enduring and costly of America's nation building projects ever: the creation of 'South Vietnam'. Along the way, these construction corporations in Vietnam embedded themselves in the country as they proceeded to create a vast military infrastructure to make the southern half of Vietnam military defensible. Though they put an unprecedented effort into ingratiating themselves among the people and into creating a corporate work culture among their fifty thousand workers, they failed to overcome the larger resistance to the whole project.

By 1965, the year of major escalation and 'Americanization' of the war in Vietnam, the United States had for ten years been trying to create a new nation below the seventeenth parallel.² A substantial aid and assistance programme inaugurated in 1954 had steadily grown in scope and magnitude. That over-all programme had swollen from several hundred US military personnel and a couple hundred million dollars in annual aid to more than 180,000 military personnel and over six hundred million in aid. Despite such a large scale programme designed to create a separate nation out of southern Vietnam, the experiment in nation building continued to flounder. The removal and assassination of the Saigon regime's leader Ngo Dinh Diem in early November, 1963, had only exacerbated an already dire situation. United States policymakers and planners responded to the unfolding political, economic, and social collapse inside southern Vietnam by substantially ramping up what had been a very limited direct US military role there.

Anticipating this wider US military involvement, the administration of Lyndon B. Johnson authorized in 1964 a consortium of private firms to begin an epic programme of military construction designed to create the kind of physical infrastructure that would make escalation possible. That consortium, employing more than 50 thousand (mostly Vietnamese) workers at its peak, became a highly

visible and relatively permanent feature of the US mission as it went about transforming southern Vietnam through not only massive military base and port building projects, but also through the imposition of American corporate culture in trying to create a reliable, quiescent workforce. Ironically, though this epic military construction programme succeeded beyond anyone's imagination, the war that it made possible not only failed but supplanted and undermined the larger aim of nation building, of creating an independent Vietnam below the seventeenth parallel.

'The Construction Miracle of the Decade'

By the time the Johnson administration decided to escalate Vietnam into a war instead of an aid and assistance programme, the U.S mission had already outstripped the capacity of southern Vietnam to receive it. Infrastructure was non-existent, insecure or inadequate. Significant portions of the road network became at times unusable due to lack of security, decay and war damage or some combination of these. By all accounts, the administration faced a crossroad in its policy toward Vietnam by early 1965: either allow for complete collapse of the entire project and withdraw the United States from the situation, or undertake an American military take over and an attempt to prevent what nearly everyone viewed as imminent.³ The latter course, the one chosen, would mean a considerable investment beyond just large numbers of troops. It would also mean a commitment to establish a vast physical infrastructure to remake southern Vietnam.

All of southern Vietnam had only three airfields capable of landing jet aircraft. Its national airline, 75% government owned, consisted of twelve aircraft, none of which was jet propelled.⁴ Tan Son Nhut, the Saigon airfield serving as the principal hub, received some of the military aid, but could not begin to keep pace with the flood of materiel. Of all the supplies destined for southern Vietnam, over 90% arrived by sea. Consequently, the increased volume of military hardware and Commodity Import Programme (CIP) goods created significant port congestion. Saigon, in fact, possessed the only port with deep draft berthing. Other port facilities such as those at Da Nang, Nha Trang and Hué remained woefully inadequate. Over the next year, almost half of all military cargo and 90% of all Agency for International Development (AID) cargo passed through the port at Saigon. The congestion became infamous as ships and barges often waited a period of weeks or months for dock space to off load. As of early 1965, despite years of economic aid and infrastructure development, southern Vietnam still lacked anything like an integrated, modern, national infrastructure. In past years, though recognized periodically as an obstacle, this underdeveloped infrastructure was not nearly the problem it soon became. A congressional team explained the importance of the port situation following a series of investigative trips there in 1966: 'Vietnamese port capacity is the chief factor bearing on the amount of assistance—both military and economic—that the United States is physically capable of providing to Vietnam.'⁵

Significantly escalating the American presence in Vietnam thus required substantial physical development. The needed construction would quickly dwarf that which had come before. Engineers and construction teams had been at work building up the physical infrastructure of the southern half of Vietnam since the late 1950s. They had built new, or had refurbished, canals, roads and bridges, residential areas, hospitals, port facilities, airfields and more. Beginning in 1962, much of this

work was handed over to a consortium of private American construction corporations made up of Raymond International and Morrison-Knudsen (RMK). The work had been somewhat limited, however, by the limited nature of American involvement. Those placed in charge of various building projects assumed the work would be completed in only a few years. The pace of new projects seemed to confirm this as orders trailed off throughout much of 1964. In August, however, this trend was reversed as a series of new orders began to arrive at the offices of RMK.⁶

Originally contracted for around \$15 million in construction work, RMK saw its responsibilities expand dramatically from late 1964 into early 1965.⁷ By spring, construction allocations had soared to over \$150 million and RMK could hardly keep pace.⁸ Because so much of the work had to be completed prior to escalation, the consortium knew of the imminent American expansion well before most others. At the same time, the scale of the work, the pace of the projects and the funds allocated provided some early indication of things to come. The congress granted the administration \$700 million in supplementary military spending for Vietnam in 1965, and \$100 million was earmarked for construction. These projects quickly spread across much of southern Vietnam and involved ports, ammunition dumps, airfields, radio installations, refugee camps, barracks, fuel depots, hospitals, warehouses and other facilities. By May, the consortium had more than doubled its workforce from the 1964 level, hiring several hundred American construction workers and eleven thousand Vietnamese, largely as unskilled labourers.⁹ Several months later, the orders still ran far ahead of the capacity of RMK alone. One exasperated MK official explained, 'all we knew was that they wanted a lotta roads, a lotta airfields, a lotta bridges, and a lotta ports, and that they probably would want it all finished by yesterday.'¹⁰ In early August, RMK brought onboard two other large American construction firms, Brown & Root and J. A. Jones Construction to form the RMK-BRJ. This consortium became the sole contractor for the federal government for military construction projects in Vietnam. The US Army, the Navy's Seabees and the Air Force's Base Engineering Emergency Forces (BEEF) construction units also played a role, but the RMK-BRJ accounted for the lion's share of all work, or about 90% of the total.¹¹ The RMK-BRJ, eventually renaming itself the 'Vietnam Builders' to convey its enlarged role, negotiated a cost-plus-fixed-fee contract via the US Navy for a staggering array of construction projects aimed to quickly prepare Vietnam below the 17th parallel for a major US military presence.¹²

Quickly ramping up the direct American role accelerated the need for more projects. Once completed, a given project such as barracks or warehouse space was often quickly inundated and more became necessary. In some instances, projects had to be expanded even before completion. In early March, the first contingent of combat troops, two Marine battalions, waded ashore at Da Nang, officially to guard the air base there. More troop deployments soon followed. As it became clear that the Rolling Thunder bombing campaign begun in the spring had little or no impact on Vietnamese leaders in Hanoi and even less impact in the south, the White House authorized US ground forces to engage in offensive operations.¹³ Administration officials then recommended increasing US troop strength by 40,000 following a hastily-convened Honolulu conference in late April.¹⁴ The period from July to December saw the greatest increase as the United States sent approximately 150,000 soldiers to Vietnam. By the end of the year, the troop total stood at 184,000; up from

just 23,000 a year earlier.¹⁵ A week prior to the March deployment at Da Nang, Secretary of Defence Robert S. McNamara had assured the military brass that there was an 'unlimited appropriation' to meet the military requirements in Vietnam. A large part of that appropriation came, as it came in subsequent years, in supplemental military spending packages approved by congress in May and again in August.¹⁶ During these weeks, events moved with great speed, which accelerated the construction needs exponentially. Once landed, these troops needed a vast support network including bases, supply lines, equipment, maintenance and repair facilities, messing and quartering facilities, water and sewage systems, power plants, a communications network, and more. The administration could only escalate the war in Vietnam as fast as an infrastructure to receive the influx could be built.¹⁷

Historian John Prados has estimated that each US soldier required 50 pounds of supplies a day when in the field. At this rate, the 184,000 troops in Vietnam by the end of 1965 required 138,000 tons of supplies per month. When the Vietnamese military forces being supplied and trained by the Americans are added, the over-all figure jumps to more than 285,000 tons of supplies per month. This quantity far exceeded the entire port capacity of southern Vietnam.¹⁸ These estimates only account for a relatively small percentage of the total supply volume required for the kind of escalated role now being planned and implemented. CIP goods for 1965, for example, had grown to \$150 million, while total aid swelled to nearly \$350 million.¹⁹ Not counted in these numbers are additional military materiel requirements which reached 650,000 tons per month in 1966. Throughout the year, AID commodities and war materiel continued to flood into Vietnamese ports and airfields, to fill up docks and to consume all available warehouse space. Airfields too experienced sharp increases in the flow of goods. Traffic increased at Saigon's Tan Son Nhut airfield by 200% in just over a year, giving the airport a heavier traffic load than Los Angeles International. Air traffic at the Da Nang facility increased 5,000% from 1961, while Ban Me Thuot saw a 500% increase and Hué 300%.²⁰ Ship and barge traffic piled up while waiting off-loading. By November, 1965, 122 ships laden with goods sat idle unable to find dock space.²¹ An ad hoc construction programme simply would not meet the tremendous needs. Something more systematic would be needed.

Military planners quickly pieced together a model for the development of a modern, integrated military infrastructure to encompass all of southern Vietnam. The plan called for heavy port construction at Da Nang, Qui Nhon, Cam Ranh Bay and Saigon. These ports, once substantially developed, would form the 'keystones of the base development plan and the centres of what eventually became semiautonomous logistical enclaves'. These three port areas, complete with major airbases, would receive troops and supplies, and then feed both into the interior and to smaller ports all along the coast. In mid-1965, and aside from these coastal facilities, the United States military had no way to deliver the expanding volume of supplies into the southern Vietnamese interior. There simply was no system as such, extending into the countryside capable of delivering goods on anything like the scale rapidly becoming necessary. Consequently, planners considered the system being designed and quickly constructed absolutely necessary. Almost simultaneously they also realized that, however grandiose their initial planning, it would not begin to accommodate the forces and equipment requirements being assembled in the coming months. These basic plans were revised and expanded almost constantly over the

next two years. The result would be an immense grid complex of airfields, bases, ports, canals, ammunition depots, military hospitals, dumps, warehouses, and light industry for military production, all woven together to form a kind of military 'matrix'. Needed supplies and materiel of all kinds could simply be plugged in to the system at any point and conveyed to any other point along the grid. Airfields, both large and small, would dot the landscape as well. The plan was to have no spot anywhere in southern Vietnam more than 15 miles from an airfield, and airfields would have ready access to other larger airfields and/or the system of ports.²²

By late 1965 and into early 1966, the transformation of southern Vietnam was well underway. The Builders completed or neared completion on a number of projects at Cam Ranh, Da Nang, Qui Nhon, Pleiku, Chu Lai and, further south at Vung Tau, Bien Hoa, Soc Trang and Saigon. Projects were underway at dozens of construction sites simultaneously to assemble all of the pieces of the larger grid and get it up and functioning to relieve massive congestion and to allow for the assembly of even greater forces and related materiel.²³ At Saigon, planners decided on a brand new facility just upstream from the existing pier. The new, deep draft facility, called Newport, would consist of multiple deep draft berths and receive military cargo exclusively. Traffic teemed at numerous lesser ports all over southern Vietnam.²⁴ Hundreds of thousands of square feet of new warehouses overflowed with goods and more space was hurriedly being built. Numerous airfields, some that had only recently come into existence at all, now accommodated hundreds of flights daily, and others were in various stages of construction. An extensive road-building programme was also underway involving hundreds of miles of new and refurbished roadways linking towns along the coast to each other and to the interior. Whole new industries sprang to life as the American construction programme devoured massive quantities of cement, crushed rock, sediment, and landfill to construct the large bases. The US military acquired tens of thousands of acres of land on which to build these facilities and to establish rock quarries, uncovered storage, staging areas and rights-of-way. At year's end, the consortium's workload had expanded by 600%, and the value of the construction project more generally, 1,000%. In February, 1966, the Navy's officer in charge of construction (OICC) cautioned, 'we've only really begun to fight the construction side of the war'.²⁵

'A period of... frayed nerves, deadlines, shortages and magnificent achievement'

The Vietnam Builders responded to the demands of war remarkably quickly, organizing hundreds of projects at dozens of sites over the whole of southern Vietnam. Throughout 1965, as the pace of construction work quickened exponentially, the Builders embraced their role and grew with these demands by expanding its workforce to more than 24,000, crowning its executive staff in Saigon with MK's Vice President for Foreign Operations, Lyman Wilbur, as 'resident partner' and acquiring or placing on order \$110 million in equipment. Project volume had mushroomed to \$12 million of work-in-place per month (WIP). The consortium's executives and engineers continued to marvel at the sheer magnitude of the transformation of southern Vietnam. The scale and pace of the work exceeded anything any one of the companies had ever experienced. The equipment requirements alone in Vietnam surpassed all the equipment owned by MK worldwide, including its subsidiary companies. Executives looked forward to at least

another year of growth at or even above the rate achieved so far.²⁶ They and the Navy OICC had forecast correctly; construction in Vietnam continued to expand exponentially during 1966 and beyond.

That the over-all project would turn out to be a failure certainly was not obvious in 1966. This is particularly clear when viewed through the lens of the contractors and amidst the whirlwind surrounding their activities from 1966 through 1968. The Vietnam Builders' *Diary of a Contract* recorded that the year 1966 was,

as wild a period as any human being can imagine. Thousands of people were arriving from the United States, South Korea, the Philippines and 27 other nations; tens of thousands of South Vietnamese were hired and taught a construction trade; hundreds of thousands of tons of materials and equipments were off-loaded over the beach and delivered to depots, which were themselves in the process of being built; airfields, ports, pipelines, barracks, hospitals, ammunition dumps, storage areas, roads – in fact, every type of useful facility known to man had to be built for the military services. Not the least of the problems being faced was building the base for the contractor's own operations – camps, maintenance shops, warehouses, etc. These competed for the labor, materials and time which the soldiers, sailors, airmen marines understandably felt were there to fulfill their own urgent needs. In short, it was a period of 20-hour days, 7-day weeks, frayed nerves, deadlines, shortages and magnificent achievement.²⁷

Indeed, the Vietnam Builders, the name adopted early in 1966, established themselves as a relatively permanent fixture within Saigon and within the larger American mission. Over the year and a half extending from January 1966, the Builder's put in place \$670 million of construction projects, compared to \$130 million over the whole of the previous four years.²⁸ Along the way, the consortium integrated itself into southern Vietnam in much the same way as the American military forces. The monetary value of the projects really only tells a part of the story.

From its office headquarters complex in the heart of Saigon, the Builders began publishing a newspaper, titled simply *The Viet-Nam Builders*, in the spring, in both English and Vietnamese, with a combined circulation of 46,000. Its pages carried stories of construction projects underway, of budgets and costs and of military adventures. The paper also ran regular human interest and entertainment features from local dances to the RMK-BRJ softball league games between the all-Filipino 'barefoot boys,' and better equipped American Air Force and Navy teams. The former soundly defeated the American teams even without shoes and proper equipment.²⁹ The paper regularly ran congratulatory and complimentary comments from both American and Vietnamese political and military officials. Its essays, articles and commentaries were notably positive, upbeat and even fun. The paper contained scarcely a mention of the war's destruction in the countryside, and its violence shows up only episodically. Its pages contained no discussion of the politics of war and offered no forum for airing differing views on the various aspects of the war then being hotly contested back in the United States. These matters lay beyond the purpose of the paper.³⁰ *The Viet-Nam Builders* served to connect the Builders with readers and the readers to each other as a vital part of the life of the American mission in Saigon and in southern Vietnam. Correspondents from Vung Tau, Ban Me Thuot and Qui Nhon to Phan Rang, Rach Soi and Cam Ranh all provided the stories

that came together in the pages of *The Viet-Nam Builders* in a way that communicated much more than 'the news'. They helped to create the sense of harmony and united effort that US policymakers back in Washington regularly emphasized in their own explanations for why there was a war to be fought in Vietnam.³¹

The creation of such an atmosphere likely also served well a workforce quickly cobbled together and consisting of Americans, Vietnamese, Koreans, Filipinos and hundreds of others from numerous different countries. A consequence of harsh work conditions, low pay, long hours with no over time, and job hazards, one of the most difficult challenges lay in keeping an adequate number of workers in the field. Inflation also far outpaced wages making it more difficult to attract skilled workers. A Vietnamese worker's pay scale, for example, was based on the 1957 schedule and did not reflect the considerable inflation during the period. Relying on a largely Vietnamese workforce was also cheaper since those workers earned roughly half the pay of a Navy Seabee and were completely self sufficient; that is, they did not have to be fed, clothed, and billeted by the US government. They could also be fired at any time to quickly reduce costs.³²

The Builders even inaugurated their own programme for training Vietnamese students in the skills needed for construction, sending the first 219 off to various job sites as part of a six week programme in 1966.³³ At its peak, the consortium's workforce numbered slightly more than 51,000, with around 47,000 Vietnamese, Koreans, Filipinos and others, and 4,000 Americans, overwhelmingly in supervisory and management roles.

Within these numbers, however, this workforce changed a great deal. Over the life of the contract the Builders employed between 180,000 and 200,000 Vietnamese.³⁴ A high rate of turn-over, the demands of the work and the fluidity of a war environment in general gnawed away at cohesion and unity of purpose that the private contractors relied upon in their constant race to make deadlines and increase the pace of work on hundreds of simultaneous projects across southern Vietnam. Some of the most troubling labour unrest, which the Builders' own self-evaluation termed a 'minor civil war,' began not out grievances between labour and management, but out of the general opposition to the regime.³⁵ Despite these and other considerable obstacles, the Builders benefited from a large pool of labour. Because of the very limited nature of Vietnamese home production and industry, these labourers were unlikely to be siphoned off to other attractive industry and/or factory jobs locally. Nevertheless, the Builders' management understood the need to attract workers given the omnipresent war climate.³⁶ The creation of its own corporate work culture no doubt aided in this. It also helped the consortium to ease thousands of American workers into the very different environment of construction work in Southeast Asia.

At least one of the utilitarian aspects of awarding private contractors the lion's share of responsibility for all military construction in Vietnam was that the considerable labour requirements would be met by Vietnamese and not by additional US military engineer forces. To have relied on military construction units for the needs in building up southern Vietnam would have meant significantly larger deployments and much earlier.³⁷ The Johnson administration still hoped to keep these changes in US policy shrouded in secrecy. The deployment of tens of thousands of US servicemen to build the physical infrastructure of southern Vietnam

in preparation for wider war would have made secrecy virtually impossible. The construction needs were too great and the scale of the work too immense.

That work environment was busier and the activity more frenetic than ever in 1966. Despite all that had been built up during the second half of 1965, it was really just the beginning of a much greater construction project. Engineers forecast the requirements in terms of equipment, manpower, capital and time based on the support needed for around 200,000 American troops. No one yet imagined building to accommodate over one half million. Even at this still limited level, however, construction achieved a pace of \$1 million of work-in-place-per-day by late summer. The contractors expected to (and did), achieve \$40 million of work-in-place per month in the fall. To compound the difficulties, southern Vietnam still lacked the infrastructure to handle the barrage of equipment and supplies necessary to carry out that construction. As MK's own monthly publication announced in August, 1966, 'logistical problems are enormous, for virtually everything has to be shipped in – and in prodigious quantities.' The lack of adequate airfields and of ports in particular made the build up for war all the more challenging. Military planners expected the engineers to build a modern national infrastructure to accommodate hundreds of thousands of troops and major war, and, yet, the very fact of limited or absent infrastructure sharply restricted their ability to do so.

Projects required, for example, close to 45 million meters of lumber, 3,600 prefabricated buildings, 4.9 million kilograms of nails, 750,000 sheets of plywood and 45 million kilograms of asphalt, plus nearly two thousand trucks and tractors, just to name a very few of the much needed materials.³⁸ Construction materials competed with an increasing flow of commodity aid, food aid, military aid and all other imports for limited dock space, deep draft berthing and airfields. Once the needed materials did arrive, a reliable transportation system would have to then disperse the right supplies and equipment to the right job site out of the many hundreds then underway.³⁹ The Builders also required the simultaneous construction of their own camps, demanding still more resources of labour, time, materials and a system of efficient and rapid supply.

Creating a Workforce and Building the Bases

The workforce for this mammoth task began to take shape by early 1966, growing to close to 30,000 personnel. Consisting overwhelmingly of Vietnamese, but also made up of Koreans, Filipinos and other third country nationals, problems of language, culture, religion, and basic understanding abounded.⁴⁰ The Builders employed translators on job sites all over southern Vietnam when they could. They also inaugurated a crash English language programme conducted in tents on jobs sites in 1 hour sessions three days per week.⁴¹ The training programme begun in late summer 1966, also aimed at creating more cohesion and continuity within the workforce. General Manager Jim Lilly hoped to create a more harmonious work environment as he welcomed the students of the programme into the ranks of 'construction stiffs' who he believed represented 'perfect examples of the rugged individualism that has permeated the free enterprise system.' At the same ceremony for the training programme, Tran Luu Cung, the regime's Undersecretary of State for Education, also lauded the efforts of the Builders and thanked Lilly for the 'seaports, airports, modern industries and highways' at the same time he assured the students

in the audience they were learning from 'experienced specialists' the very knowledge and skills an independent South Vietnam would need in the future.⁴² At the same time, the Builders presided over the grand opening of a new recreation centre for third country nationals in the northern part of southern Vietnam at Cam Ranh Bay. A Builders spokesman hoped 'that the new hall [would] contribute even further to the harmony of all the nationals here.' The several hundred Vietnamese, Koreans, Filipinos and others gathered at the event took in lively music, dance and cold beer 'like fish to water' according to a *Viet-Nam Builders* correspondent.⁴³ Executives, engineers and other planners consistently spoke in grandiose terms of their hopes for these and similar measures to yield a greater harmony and unified effort because they were keenly aware of the problems and obstacles in their path.

The planners and industry observers connected with the Vietnam Builders were in fact deeply ambivalent regarding these Asian workers. They brought to the enormous task of building the physical infrastructure of southern Vietnam the same features of arrogance, paternalism and racism that pervaded other aspects of US policy toward Vietnam. MK chairman H.W. Morrison referred to Vietnam as 'this little land of confusion and suffering' without recognizing the role played by his own corporation and his country in that confusion and suffering. Morrison and others believed these problems were Asian problems; they were problems associated with communism, with civil war, with regional differences, or perhaps embedded deep in Vietnam's history. They were, in any case, problems the Vietnam Builders believed they were actively trying to solve.⁴⁴ Vietnam and Southeast Asia in general, was a bewildering place that defied easy understanding by American engineers and workers. These Americans, like those in the military, AID, at the US Embassy and elsewhere, viewed the Vietnamese and the objectives in Vietnam through a decidedly American and Western lens. They viewed themselves as on the right side of whatever were the terms of the struggle. They were bringing to Vietnam all of the accoutrements of a modern, developed society and, in doing so, lifting the Vietnamese people out of their condition of relative backwardness and ushering them into a new era of peace, modernity, democracy and prosperity. It can also be said that if they expected any response in return for their efforts, it was gratitude, not resistance and scorn. The American's attitudes toward the workforce, whether Vietnamese, Korean, Filipino or American, were manifest most clearly in the pages of its newspaper published in Saigon, its in-house monthly magazine, *The Em-Kayan*, and in other industry and trade periodicals which devoted articles to the Vietnam Builders' construction effort.

Articles and features dealing explicitly with the consortium's workforce quickly became the most common feature of *The Viet-Nam Builders*. As mentioned, writers made a considerable effort to highlight social and entertainment aspects of working for the Builders. From dances, galas, and softball tournaments to barbeques, fundraisers and picnics, the pages of *The Viet-Nam Builders* were filled with an array of articles that conveyed the sense of unity and even family that executives regularly trumpeted in their public statements.

Articles also regularly highlighted specific workers and specific episodes for outstanding accomplishment. Nineteen year old Hoang Thi Phuong, for example, came in for high praise as the only female work-shop interpreter at the Builders many jobsites. Despite her diminutive stature, the newspaper intoned, she had

become an invaluable asset in the carpentry shop. Having previously worked as a translator for the US Air Force, she quickly adapted to the alien terminology of military construction and had become 'one of the pillars of the carpentry shop,' according to a general superintendent. She had become, wrote *The Viet-Nam Builders* correspondent, 'conversant with the new terminology as if she'd been born and raised in the...shop.'⁴⁵

Another article in the same edition of *The Viet-Nam Builders* praised a Vietnamese worker, Dinh Van Khang. Khang had worked for the consortium since 1963 as a surveyor and climbed the company ladder to a higher rank than held by any other Vietnamese. However, all the paper's readers should take inspiration from this example. As the article suggested, though 'none of his countrymen rank as high in the joint venture...the road is open, and Khang has blazed the trail.' Further, he had achieved such a lofty status by 'burning the midnight oil assiduously'. Khang was a hard worker whose commitment and energy to the project others could and should imitate. Also talented on the guitar and clarinet, he had played with concert orchestras, taught music and earlier graduated from the Da Lat National Military School. So accomplished was he that the article's author dubbed him "'King" Khang'.⁴⁶

Pham Van Binh also received high marks in the pages of *The Viet-Nam Builders* for his 'aquabatics.' Pham had for years been employed by the consortium as a diver. Plunging into the depths of Vietnam's canals, harbours, ports, and rivers, *The Viet-Nam Builders* viewed him 'as a kind of human submarine,' who cut steel with an acetylene torch, tightened bolts, retrieved lost tools, drove piles and accomplished whatever other tasks lay beneath the waters surface. He served the Builders on the massive Newport project as well as the Bien Hoa highway bridge, Quay 1, Wharfs 1 and 2, and Island Depot projects. He was considered the best diver in the Saigon area.⁴⁷

Articles also communicated a palpable sense of paternalism between the Americans and the majority of workers. In one example, a Builders foreman Peter Abeyta took responsibility for a worker who had frequently been the object of ridicule and abuse. The foreman 'realized that he was little bit retarded' and tried to protect him. Abeyta decided to take the Vietnamese worker 'under my wing. You have to be patient with him and show him how to do things, but he learns and now he's a good little worker.' The article featured a photo (as most did) of the foreman towering a full head above his 'protégé,' both wearing the ubiquitous hard hats distributed to all workers.⁴⁸ This anecdote is instructive not simply because of the relationship it illustrates or because it no doubt reflects something of the larger relationship. It is instructive because it made the pages of the contractor's newspaper.

The stories featured in the pages of *The Viet-Nam Builders* spoke directly to almost every conceivable element of this varied workforce. There were profiles on wayfaring American secretaries, on Vietnamese warehouse workers being supplied coats and gloves to load walk-in freezers, on an American pile driver narrowly escaping an insurgent's grenade, on the heroics of two American employees who repelled an apparent insurgent attack on a quarry, the notable efficiency of workers building a stretch of new roadway from the village of Qui Nhon to Phu Cat, and the opening of new mess facilities where American, Filipino, Korean and other workers

shared meals.⁴⁹ The contractors provided in the pages of this newspaper a sense of unity; the stories bound the workers in Vietnam in much the same way company newsletters, magazines and other outlets for shoptalk and sidewalk gossip forged a sense of work culture in the United States.

Construction industry writers observing this epic building programme in Vietnam revealed much about American thinking on the subject of Vietnamese workers as well. A writer for the industry journal *Engineering News-Record* wrote in a May 1965 article that the Vietnamese were not initially capable of this kind of difficult work. Often untrained and without any particular skills, the Vietnamese workers had to be taught quickly the basic skills needed to make a contribution. The article portrayed them as 'small men, often weigh[ing] only 90 lb or so.' They 'look[ed] like children at the wheel of a big bulldozer or truck. Some are strong enough for only four or five hours a day of such work.'⁵⁰ Despite the assertion, the author offered no explanation of how the same Vietnamese ever became such efficient and productive farmers in this climate that exhausted the American soldier. The article reveals as much about American paternalist notions of small and weak Asians as it does about the nature of the work being done.

Morrison-Knudsen, the lead company of the consortium, revealed something of its own assumptions regarding Asians as it advertised the degree to which it included Vietnamese in its workforce. In a photo spread contained in its monthly magazine in late summer 1965, the contractor displayed full-body photos of more than two dozen Vietnamese women who worked as secretaries in various Vietnam Builders offices. Referred to as the 'gallery of charm in South Viet Nam,' the photos were a clumsy and paternal attempt to appreciate the role of these women who, the caption noted, were dressed in their traditional 'costumes' for the occasion.⁵¹ The women, each wearing traditional dress, stood posed in a tight bunch for several photos. Standing in the calm, neat and organized space of the Builders' offices, they were far removed from not only the more dangerous and ugly side of military construction work, but also from the war which raged just beyond those office walls. The readers of *The Em-Kayan* magazine, which was not circulated in Vietnam, would not have gleaned from these photographs the difficulty of piecing together and maintaining sufficient labour to carry out the hundreds of military construction projects then underway simultaneously all over southern Vietnam.

By late summer 1966, the workforce had grown to more than 48,000. Of this number, over 39,000 were Vietnamese, 5,100 third country nationals, and nearly 4,000 US supervisors.⁵² The workforce remained much more fluid than the contractors would have preferred. The continuing rise of war and its related destruction brought on less stability even in the relatively rarefied environment of working for the American contractors. Hundreds of workers were injured or killed on the job, went on strike, refused to work, or simply disappeared from jobs for extended periods. In August, workers launched a two day general strike at the massive Long Binh base project to protest the implementation of an eight hour working day for all Vietnamese personnel. In November, Diep Van Lien, a sheet metal worker, died when caught in the middle of a fire fight between the regime's forces and insurgents on his way to work. In January, 1967, insurgents detonated explosives onboard the consortium's largest dredge, the *Jamaica Bay*, sinking it immediately and killing three

workers and injuring several more.⁵³ These and similar incidents had become commonplace.

The realities of piecing together such a large workforce compelled the Builders in early 1966 to establish its own Labor Relations Division to begin to try and deal with some of the problems. The Builders recognized 'that throughout the history of Viet Nam, no single company had ever employed the numbers of Vietnamese workers as RMK-BRJ would require.' Consequently, the new undertaking called for a great deal of attention and care, particularly in this war environment that contributed to the lack of worker cohesion and stability. The LRD attempted to deal with issues of an inadequate pay scale, of electing worker representatives, of bringing third country nationals into the fold, of work conditions and more. Despite these efforts, the Builders only managed to mitigate a small proportion of these and other problems.

In the summer 1966, low wages and a rapidly rising cost of living led to 'a most damaging series of strikes,' according to a comprehensive report written by the contractors. Officials in the Saigon regime and US government agencies rejected a recommendation to increase worker pay that the LRD believed would 'preclude labor problems'. From April 1965, to July 1966, the cost of living rose more than 124%. Wages had not increased over this period. Workers in the Saigon area responded to the rejection of the wage increase proposal by going on strike. The LRD estimated the strike cost 695,000 man hours, which accounted for 2/3 of all the time lost to labour problems for most of that year over all of southern Vietnam. Further, low wages had been 'the only major complaint expressed by the workers' and the strike ended when a wage increase was finally guaranteed.⁵⁴

Almost simultaneously, 'general civil unrest' substantially disrupted the construction effort to the north in Da Nang. Beginning in April, all the Vietnamese workers (85% of the workforce) 'failed to report' to the job sites, effectively shutting down the work. This general strike among Vietnamese working for the Vietnam Builders apparently had nothing to do with wages. Rather, it grew out of a larger anti-government movement among the people in the area. From April 5 until April 13, Vietnamese workers stayed away from the sites. Eventually a 'minor civil war' erupted involving tanks, mortars, aircraft, small arms and considerable violence. Vietnamese insurgents and forces loyal to the regime clashed in and around Da Nang, making construction impossible. Jobs sites were shut down entirely as bridges and roads closed due to concerns over safety. The closings held up the delivery of much needed equipment and supplies. The contractors estimated they lost 30 days of productivity due to this incident. The disruption finally ended in late May, but only about half of the Vietnamese workers returned to work.⁵⁵

The Vietnam Builders cited a laundry list of problems with holding together such a workforce in this environment. Living conditions on job sites, inadequate communications and transportation, insurgent activity, unorganized workers, language barriers, cultural differences among workers, racial prejudices, wide variance in skill level, job site location, 'unscrupulous agitation by unions,' and an inability to meet demands for wage increases all contributed to the serious problems of instability within the workforce.⁵⁶ Into 1967, pressure also mounted to curb the overall costs of the construction programme, which topped the \$1 billion mark in May.⁵⁷ Since much of the equipment and supply costs had been built in and were

hence unavoidable at this point, the only possibility for reducing costs came in cutting the size of the workforce. By late February 1967, the Vietnam Builders had reduced its workforce to less than 40,000, laying off many Vietnamese, third country nationals and Americans in the process. The consortium reduced its labour force by over 4,000 for the month of February alone.⁵⁸

Throughout the latter half of 1965 and all of 1966, the pace of the military construction had been remarkably hurried. The Vietnam Builders own comprehensive narrative of the programme characterized the period as one of 'go, go, go – get it built.'⁵⁹ By late 1967, however, change was in the wind. Much of the physical infrastructure deemed necessary to launch a major military campaign against the insurgency was now either in place or well underway. Hundreds of major projects, massive military bases, airfields, deep draft port facilities, warehouses, barracks, petroleum-oil-lubricant (POL) storage, military hospitals, hundreds of miles of roadways, improved harbours and canals for transportation and more had now been built. Major war raged over all of southern Vietnam. Furthermore, the costs of the war soared beyond all earlier estimates. By the late 1960s, the war in Vietnam cost upwards of \$25 billion annually.⁶⁰ Though the contract remained in place until 1972, the storied days of impending deadlines, mounting demands for more construction projects, an insatiable need for more and more workers, and lavish spending were over.

Nation Building, War and the Destruction of Vietnam

The Vietnam Builders constructed from scratch an enormous modern, military infrastructure throughout southern Vietnam. The massive projects at Long Binh, and Newport, the sprawling headquarters installation at Tan Son Nhut, and the Cam Ranh Bay and Da Nang ports to the north, represented \$790 million in completed construction projects. These five projects, however, represent less than half of the whole construction programme for southern Vietnam.⁶¹ Many others competed for materials and labour and their costs ran to many millions of dollars. The great airbase at Bien Hoa, for example, cost \$80 million and became a full service facility complete with its 3,000 meter jet landing strip, ammunition depot, POL storage and barracks. Likewise, the large modern military installations at Pleiku, Qui Nhon, Vung Tau, and Nha Trang all required dozens of miles of road construction, prodigious quantities of labour and resources, the elimination of hundreds of acres of jungle and a huge volume of supplies of all kinds to keep them operational, costing nearly \$200 million to construct.

Other projects included those at Cat Lo, Can Tho, Soc Trang, Phan Rang, Phu Cat, Ving Long, Rach Gia, My Tho, Ban Me Thuot and An Khe. These projects required the establishment of huge quarries in southern Vietnam to obtain the millions of tons stone needed for roads and fill, and the acquisition of many thousands of acres of land on which to build bases, and as rights of way. During the life of the contract the Builders moved 70 million cubic meters of earth, used 49 million metric tons of rock product, nearly 11 million metric tons of asphalt, poured 3.4 million kilometres of concrete, enough to have built a wall 60 centimetres wide and 1.5 meters high completely around southern Vietnam, and moved an average of more than 500,000 metric tons of goods every month. The US Navy and the Builders valued the construction put in place across southern Vietnam at \$1.9 billion at the

completion of the contract period.⁶² Certainly, such a mammoth construction programme brought in much capital, technology and left a physical infrastructure unparalleled in all of Southeast Asia. Only when assessed in full measure does one begin to appreciate why those involved referred to their work as 'the construction miracle of the decade.'

Oddly, this enormous military construction programme, which made the war itself possible, is completely absent from nearly all accounts of the war in Vietnam.⁶³ The Vietnam Builders became as much a part of the life of southern Vietnam as did the US military. They were everywhere at once, carrying out hundreds of construction jobs simultaneously. They trained many tens of thousand Vietnamese and others in English language, welding, pipe fitting, carpentry, road building, heavy equipment operation, surveying, mechanics and many other required skills. The consortium employed far more Vietnamese than any other business in southern Vietnam. The Builders, together with the US military, were far and away the single largest employers in southern Vietnam. Through their newspaper, the Viet-Nam Builders reached out to a disparate workforce to communicate a particular work and corporate culture. A presence in southern Vietnam for more than a decade, the private construction firms carried out a staggering array of military building. They substantially transformed the physical features of southern Vietnam. The area went from an underdeveloped former French colony to a complex system of modern military bases, airfields and ports, making it defensible, in only a few short years.

At the same time, the massive military build-up and ensuing war undermined the very nation building campaign that had launched the American mission to Vietnam from the mid-1950s. The influx of over 500,000 US troops, thousands of contractor employees, hundreds of millions of dollars in military and commodity aid, together with intense warfare in the south Vietnamese countryside, all contributed to the general destruction and dislocation visited upon Vietnam during the period. By the late 1960s, for example, the war produced approximately 4 million Vietnamese as refugees who fled the war in the countryside and either moved into the congested and chaotic urban environment or into refugee camps built by the Americans to receive the growing influx. Many Vietnamese villages and farmlands were destroyed by bombing, warfare, and by defoliants designed to destroy vegetation and expose the enemy. Many refugees fled these collection centres and returned to their villages only to find them destroyed and/or deserted.

The increased warfare also led to a general public health crisis. No infrastructure existed to contend with this outcome. Cases of cholera spread from only a few hundred in 1963 to more than 20,000 by 1965. Observers commented on the lack of sanitation, clean water and reliable medical care within the camp system. Little or no work could be found for those housed there. Over the next few years, the war claimed 100,000 civilian casualties annually. By 1968, an estimated 30,000-50,000 amputees awaited prosthetics that most never received. Another 50,000 or more civilian war victims died each year before reaching understaffed, under funded and overcrowded hospitals. An investigation by Dr. John H. Knowles, superintendent of Massachusetts General Hospital, found that nearly one-third of the Vietnamese people contracted tuberculosis, 80% suffered from 'worms of one sort or another' and that the regime in Saigon on whose behalf the United States fought, 'spend[s]

less than one percent of [its] budget on health services, less than any country – with or without war.’⁶⁴ Much of Vietnam was in tatters.

The economy, by now entirely dependent upon continued US aid, haemorrhaged as a consequence of large scale warfare. Inflation soared, with the cost of living growing by 74% in 1966 alone. The price of food, the most important single cost in a Vietnamese family’s budget, also rose 70%. The Saigon regime’s tax base was minimal and could not begin to pay for itself, with income taxes never amounting to even 10% of the budget. The city of Saigon collected 14% of its total revenue from nightclubs and bars patronized overwhelmingly by the Americans. Corruption was commonplace and grand in scale. Officials of the regime, businessmen, US servicemen and those clandestine operators on the thriving black market fleeced the US aid programme for countless millions each year.⁶⁵ Yet, the scale of war made continuing this already alarmingly ineffective and costly programme necessary.

While the enormous military construction programme had merely made southern Vietnam militarily defensible, it simply exacerbated what were already deep economic, social and political problems. Those Vietnamese working for the Vietnam Builders had been trained for jobs they would never occupy once the Americans had gone because the nation of ‘South Vietnam’ had never and would never materialize. The war could never address or remedy the most difficult problems facing the American effort below the seventeenth parallel. ‘South Vietnam’ grew out of the somewhat arbitrary Geneva settlement of 1954. Supposed to be only temporary, the United States nevertheless attempted to make the division permanent and to build the new nation as a non-communist bulwark in Southeast Asia. The difficulties in doing so were always far more political than military. Political problems proved intractable and, in fact, only worsened as the years passed. Answering those problems with an enormous military construction build-up, the ‘Americanization’ of the whole programme and the launching of major war did little to change that, despite the near total physical transformation of southern Vietnam which occurred in the process.

Following the Tet Offensive of early 1968, US policymakers began looking for ways to end the tragic and failed involvement in Vietnam as a means of restoring the nation’s vaunted role in the world. Lyndon Johnson’s successor, Richard M. Nixon, also viewed the salvaging of American credibility in the world as among his most important tasks.⁶⁶ After 1968, the United States moved in this direction, dramatically reducing its direct military role to fewer than 50,000 by summer 1972. The war itself finally came to an end in January 1973, with the total withdrawal of all US forces. The Vietnam Builders sharply drew down their own operations and the decade-long contract came to an end in the summer of 1972. Recognizing the end of the contract and the end of an epic construction programme, the contract’s lead sponsor, Morrison-Knudsen, opined, ‘there are no more pyramids to build. We have just completed the largest construction effort in history.’⁶⁷ The author, Morrison-Knudsen’s former General Manager for Saigon operations, failed to recognize that as he wrote those words, the war too was rapidly coming to an end, albeit an unsuccessful one for the United States. Despite that ‘largest construction effort in

history,' and maybe in part because of it, the many years of nation building in southern Vietnam had ended in failure and the collapse of the entire project.

The Vietnam Builders, despite the enormous effort and physical transformation of southern Vietnam, were never able to overcome Vietnamese nationalism and the popularity and persistence of the insurgency. They could not make 'South Vietnam' a reality. They encountered the problems that had dogged the entire US effort over many years. Massive construction projects, a large military effort, and the imposition of various features of US culture could never succeed without popular support and widespread legitimacy among the people.

NOTES

¹ James Dobbins, et al., *America's Role in Nation Building From Germany to Iraq*, RAND Corporation, Santa Monica, 2003.

² Following the Vietnamese victory in the First Indochina War between the Vietnamese and the French in 1954, a conference held in Geneva in that year produced a settlement temporarily dividing Vietnam at the 17th parallel, with national elections to follow in 1956 to reunify the country. See 'Foreign Relations of the United States (FRUS), 1952-1954, v. XIII, Indochina, 1828-1834'. George C. Herring, 'A Good Stout Effort': John Foster Dulles and the Indochina Crisis, 1954-1955,' in Richard Immerman, et al., *John Foster Dulles and the Diplomacy of the Cold War*, Princeton University Press, New Jersey, 1990, pp.213-34.

³ George McT. Kahin, *Intervention: How America Became Involved in Vietnam*, Anchor Books, New York, 1987, pp.310-1. At the same time, McNamara aid John McNaughton ranked the factors calling for greater American intervention in the following order: 70%, 'to avoid a humiliating defeat,' 20%, to keep the territory out of 'Chinese hands,' and only 10%, to 'permit the people... to enjoy a better, freer way of life.' Paper Prepared by the Assistant Secretary of Defense for International Security Affairs (McNaughton), March 10, 1965, *FRUS*, v. II, 1965, pp.427-32. See also The Pentagon Papers, Gravel Edition, v. III, (henceforth *PP*) pp.423-6 for a general assessment of the situation in southern Vietnam.

⁴ Agency for International Development (AID) Administrative History, Lyndon Baines Johnson Presidential Library (LBJL), p.424. United States Economic Assistance to South Vietnam, 1954-1975, (henceforth *USEASV*), AID, v. II, p.408. Carroll H. Dunn, *Base Development in South Vietnam, 1965-1970*, Department of the Army, Washington D.C, 1972, pp.7-12.

⁵ An Investigation of the US Economic and Military Assistance Programmes in Vietnam, October 12, 1966, House of Representatives, 89th Congress, 2nd session, Report No. 2257, p.64. See also, 'Memorandum for Mr. Robert Komer, Subject: Report of Special Mission – Port of Saigon, Vietnam', 14 June 1966, National Security File (NSF), Komer-Leonhart File, Box 20, LBJL.

⁶ A.H. Lahlum, 'Diary of a Contract', Saigon, July 1967, RMK-BRJ Papers, p.22. Originally, the private consortium consisted of Raymond International and Morrison-Knudsen. In August, 1965, Brown and Root and J. A. Jones Construction were both added in order to gain greater reach and access to greater resources commensurate with an expanded American military role and related construction needs in Vietnam. All documents referred to as RMK-BRJ Papers were obtained from the companies involved and came in no discernable order or arrangement. They are all in the author's possession.

⁷ Contract No. *NBy-44105*, 'Raymond-Morrison-Knudsen Joint Venture Contractor for Airfields and Communications Facilities, Vietnam,' US Navy Bureau of Yards and Docks, 19 January, 1962, RMK-BRJ Papers.

⁸ 'Military Construction in South Vietnam,' *The Em-Kayan: Magazine of Morrison-Knudsen Co.*, November 1963: pp.8-9, RMK-BRJ Papers. Captain Charles J. Merdinger, 'Civil Engineers, Seabees, and Bases in Vietnam,' *US Naval Institute Proceedings*, No. 807 (May 1970), p.261. The rate of work taking place was measured on a work-in-place-per-month basis (WIP). At the end of 1964, the WIP figure stood at \$1.7 million. By the next spring, it had leapt to over \$4 million. As plans for expansion continued, the amount of work expanded, to an eventual peak of more than \$65 million WIP.

⁹ The Vietnamese workforce was increased from 4,900 to 11,000, a leap of nearly 125%. As of April, 1965, according to A.H. Lahlum's 'Diary of a Contract' (cited above), 'every day some new and bigger phase of work was received and no diminishing of this trend was foreseen,' A.H. Lahlum, pp.27-28. 'Work Increases as War Expands,' *Engineering News-Record*, 13 May 1965, pp.25-28. 'Construction Expands in South Viet Nam,' *The Em-Kayan*, June 1965, p.7, RMK-BRJ Papers.

¹⁰ John Mecklin, 'Building by the Billion in Vietnam,' *Fortune*, September 1966, p.114.

¹¹ Letter from Morrison-Knudsen to Raymond Intl., Brown and Root and J. A. Jones, 'Joint Venture Agreement,' 16 August 1965; Letter from Lyman Wilbur (Morrison-Knudsen) to H.C. Boschen (Raymond International, Inc.), 25 August 1965, RMK-BRJ Papers. Dunn, p.27. Lieutenant David L. Browne, 'Dust and Mud and the Viet Cong,' *US Naval Institute Proceedings*, No. 811 (Sept. 1970), pp.53-57. Commander W.D. Middleton, 'Seabees in Vietnam,' *US Naval Institute Proceedings*, No. 774 (Aug. 1967), pp.55-64.

¹² The contract was converted to a cost-plus-award-fee type arrangement in late spring, 1966. Supplemental Agreement No. 3 to Contract NBy 44105, 25 May 1966, RMK-BRJ Papers.

¹³ National Security Action Memorandum (NSAM) -328, April 6, 1965, *FRUS*, v. II, 1965, 537-539. *PP*, v. III, pp.447-8.

¹⁴ *PP*, v. III, pp.436-40 and 705-706. Robert Buzzanco, *Masters of War*, Cambridge: Cambridge University Press, 1996, p.207. Larry Berman, *Planning a Tragedy: The Americanization of the War in Vietnam*, Norton and Company, New York, 1982, pp.58-62.

¹⁵ These troop increases were not, of course, without controversy and heated debate among the principals. The president, in particular, recognized that sending large numbers of American troops to Vietnam early in the year would certainly highlight changes in policy that was keen to keep quiet, and would also serve as a lightning rod for critics in the congress whose support was being carefully cultivated during these weeks and months. See *PP*, v. III, pp.330-2 and 354. Randall Bennett Woods, *Fulbright: A Biography*, Cambridge University Press, New York, 1995, chapter 19.

¹⁶ McNamara continued in this memorandum, 'Under no circumstances is lack of money to stand in the way of aid to that nation.' Each year beginning in 1965, McNamara went before congress to ask for military spending supplements for Vietnam. Through this device, much of the increased spending on Vietnam could be kept off the official budget and, thus, beyond public and congressional scrutiny. Leonard B. Taylor, *Financial Management of the Vietnam Conflict, 1962-1972*. Department of the Army, Washington D.C, 1974, pp.17-19. See also, *PP*, v. III, 474-5. Supplemental Military Procurement and Construction Authorizations, Fiscal Year 1966, Committee on Armed Services Hearings, US Senate, 2nd Session, 89th Congress, January – February, 1966.

¹⁷ Interestingly, Hanoi officials and their Chinese allies had already anticipated these latest moves on the part of the United States. Hanoi asked for Chinese aid in building its own infrastructure in preparation for war. The Chinese assented, sending dozens of thousands of engineering troops into northern Vietnam during early- to mid-1965. They began immediately building roads, bridges, base areas, and so on. By the time the last these Chinese units left northern Vietnam in summer, 1970, they had completed hundreds of miles of new railway and repaired hundreds of miles of old lines, built dozens of bridges and tunnels, and established many new railway stations. Despite such aid, North Vietnam kept its Chinese benefactors at arm's length. The key difference in Hanoi during these years, according to historian Chen Jian was that 'Communist North Vietnam was a much more mature, independent, and self-confident international actor than the Viet Minh had been during the First Indochina War.' Chen Jian, *Mao's China and the Cold War*, University of North Carolina Press, Chapel Hill, 2001, pp.221-3.

¹⁸ John Prados, *The Hidden History of the Vietnam War*, Ivan R. Dee, Chicago, 1995, pp.102-10.

¹⁹ This figure excludes military aid and allocations for the military construction programme. It includes the CIP, Food For Peace Programme, Project Aid, and the cost of Piaster purchases. See AID, United States Economic Assistance to South Viet Nam, 1954-1975, Terminal Report, December 31, 1975.

²⁰ 'US Ally in Vietnam: Civil Works,' *Engineering News-Record*, May 5, 1966: pp.15-17.

²¹ 'Construction Escalates in Vietnam,' *Engineering News-Record*, February 3, 1966, pp.11-14. Prados, p.108.

²² Dunn, pp.38-40 and 63.

²³ Lahlum, pp. 91-122.

²⁴ Paul D. Harder, 'Vietnam – Paradox of Construction and Destruction,' *Power Parade*, v. 20, No. 2, 1967, p.6. For a listing of the 'nine principal ports' in southern Vietnam and estimated capacity requirements for each, see Memorandum for the Assistant Secretary of Defense (International Security Affairs), 23 September 1965, NSF, Komer-Leonhart File, Box 20, LBJL.

²⁵ 'Construction Escalates in Vietnam,' p.11.

²⁶ 'Viet Nam: Building for Battle, Building for Peace,' *The Em-Kayan*, September 1966: 8-11, RMK-BRJ Papers. *Diary of a Contract*, pp.77 and 87-89, RMK-BRJ Papers. H.W. Morrison, 'Chairman's Memo: Productive 1965 Is Pacesetter for 1966,' *The Em-Kayan*, May 1966, RMK-BRJ Papers. 1966 Annual Report, Foreign Operations, RMK-BRJ Papers. 'Construction Escalates in Vietnam,' p.12.

²⁷ Lahlum, p.135.

²⁸ *ibid.*

²⁹ The Vietnamese language version of the periodical circulated 34,000 copies per printing while the English language version circulated 12,000 copies per printing. Lahlum, pp.139 and 143. *The Viet-Nam Builders*, September 1, 1966, Vol. I, No. 15, p. 8.

³⁰ Although, at the same time, Morrison-Knudsen's chairman, H.W. Morrison, sharply criticized those at home who spoke out against the war in Vietnam. In July, 1966, he wrote in the company's magazine of 'a certain few people in our own country [who] erode the morale of our fighting men and weaken national resolve by their words and deeds.' He continued, 'how disconcerting it is that

television and newspapers tend to give continuing prominence to the actions of a few headline-seeking students and vociferous politicians, thereby depicting our nation to people abroad as a land divided of purpose and direction. It is a sad commentary, indeed, when one bearded student who burns a draft card can receive the full attention of news media while millions of true Americans must go unnoticed because they are so uninteresting, so old-fashioned and so righteous that they still fly the flag and would willingly lay down their lives for their country.' H.W. Morrison, 'Subject: Steadfast America Can Win in Viet Nam,' *The Em-Kayan*, Vol. 25, No. 5, July, 1966.

³¹ A few titles illustrate the point: 'Barber Remembers the Mane; Meets Former Pate-rons In VN,' 'Curfew Curtails OGN Gala Dance,' 'King' Khang: Top VN Surveyor,' all in *The Viet-Nam Builders*, Vol. I, No. 15. 'R. Adm. Husband Praises OICC-Joint Venture Team,' 'Project No. 1 – It Needs Your Help,' 'Qui Nhon – Another Port Ready for Business,' 'VN Employee, 52, Performs Aquabatics for Saigon River Marine Projects,' all in *The Viet-Nam Builders*, November 1, 1966, Vol. I, No. 19.

³² 'Trim Forces for Fast, Small-Scale Work,' in *Construction Equipment and Materials Magazine*, June, 1966.

³³ 'RMK-BRJ Starts Student Co-Op Training Programme,' *The Viet-Nam Builders*, Vol. I, No. 15, September 1, 1966, p.1.

³⁴ *Diary of a Contract*, pp.148 and 153. 'Work Increases as War Expands,' *Engineering News-Record*, May 13, 1965.

³⁵ The documentary record is replete with references to the perennial problem of insufficient labour in both numerical terms and in terms of quality. There are, in addition, a number of references to strikes, riots and insurgent activity among workers which disrupted the construction process. See, inter alia, Evaluation of Contractor's Performance, 1 April 1966 – 30 September 1966, RMK-BRJ Papers, III-b-1, VI-c-1 to VI-c-4.. *Jones Construction Centennial*, 154. 'US Ally in Vietnam: Civil Works,' *Engineering News-Record*, May 5, 1966.

³⁶ The average Vietnamese carpenter, for example, earned 25 piasters per hour (about \$.33). As part of the drive to reduce the size of the workforce and to increase the number of Vietnamese supervisors to replace Americans, RMK-BRJ General Manager Jim Lilly began a training programme to teach skills and offer incentives to particularly talented and hard working Vietnamese. They could, potentially, double their pay in 24 weeks after passing a series of evaluations and tests. Lilly was optimistic, pointing out that the programme would be 'more extensive than the entire craftsmanship development programme of the state of California.' 'VN Incentive Programme Launched,' *The Viet-Nam Builders*, Vol. 1, No. 19, November 1, 1966.

³⁷ See *Jones Construction Centennial: Looking Back, Moving Forward*, Laney-Smith, Inc., Charlotte, 1989, p.154. See also Dunn, p.132.

³⁸ 'Construction of Military Facilities by RMK-BRJ is Changing Face of South Viet Nam,' *The Em-Kayan*, Vol. 25, No. 6, August, 1966, pp.12-13. To date, the Builders had paved 1,260 acres in airfields alone, imported 1,628 miles of water pipe and poured enough cement monthly to pave 35 miles of four-lane highway. Chairman's Memo, 'Subject: Impressive Achievements in South Viet Nam,' *The Em-Kayan*, Vol. 25, No. 10, December, 1966, p.1.

³⁹ *Diary of a Contract*, pp.148 and 154.

⁴⁰ 'Military Construction Grows in South Viet Nam,' *The Em-Kayan*, March, 1966, 3-6. Lieutenant David L. Browne, 'Dust and Mud and the Viet Cong,' *US Naval Institute Proceeding*, No. 811 (Sept. 1970), p.55.

⁴¹ Paul D. Harder, 'New Skills for the Vietnamese – a Prime Contribution,' *The Power Parade*, Vol. 20, No. 2, 1967, pp.20-21.

⁴² 'RMK-BRJ Starts Student Co-Op Training Programme,' *The Viet-Nam Builders*, Vol. I, No. 15, September, 1966. See also, 'Company 'Bookies' Stack Bets on VN Future,' in *ibid.*, 2, and 'VN Incentive Programme Launched,' *The Viet-Nam Builders*, Vol. I, No. 19, November, 1966.

⁴³ 'New Rec Hall for 3d Nats. at CRB,' *The Viet-Nam Builders*, Vol. I, No. 15, September, 1966, p.4.

⁴⁴ H.W. Morrison, Chairman's Memo: 'Steadfast America Can Win in Viet Nam,' *The Em-Kayan*, July, 1966.

⁴⁵ 'Home in the Work-Shop,' *The Viet-Nam Builders*, Vol. I, No. 15, September, 1966, p.3.

⁴⁶ 'King' Khang: Top Surveyor,' *The Viet-Nam Builders*, Vol. I, No. 15, September, 1966, p.3.

⁴⁷ 'VN Employee, 52, Performs Aquabatics for Saigon River Marine Projects,' *The Viet-Nam Builders*, Vol. I, No. 19, November, 1966, p.3.

⁴⁸ Caption: 'Abeyta and his Protégé,' *The Viet-Nam Builders*, Vol. I, No. 15, September, 1966, p.7.

⁴⁹ 'Saigon Girls Were 'Secretaries At-Large',' *The Viet-Nam Builders*, Vol. I, No. 24, January, 1967. 'Warming Up the Job,' *The Viet-Nam Builders*, Vol. I, No. 24, January, 1967. 'Pile-Driver Escapes VC Grenade,' *The Viet-Nam Builders*, Vol. I, No. 19, November, 1966. 'Employees Rout Phu Cat Terrorists,' *The Viet-Nam Builders*, Vol. II, No. 6, July, 1967. 'Phu Catters Stretch Funds 59 Miles,' *The Viet-Nam Builders*, Vol. II, No. 6, July, 1967.

⁵⁰ 'Work Increases as War Expands,' *Engineering News-Record*, May 13, 1965, p.27. See also, Mike Spronck, 'The Construction War,' *Construction Equipment and Materials Magazine*, June, 1966, p.129.

⁵¹ 'Gallery of Charm in South Viet Nam Construction Offices,' *The Em-Kayan*, September, 1965, p.12.

⁵² 'Construction of Military Facilities by RMK-BRJ is Changing Face of South Viet Nam,' *The Em-Kayan*, August, 1966, pp.12-13.

⁵³ '2-Day Strike at Long Binh,' *The Viet-Nam Builders*, Vol. I, No. 15, September, 1966, p.8. Lahlum, pp.153 and 159. 'Terrorist Mine Sinks Dredge at My Tho,' *The Viet-Nam Builders*, Vol. I, No. 24, January, 1967.

⁵⁴ Evaluation of Contractor's Performance, 1 April 1966 – 30 September 1966, VI-c-2, *The RMK-BRJ Papers*.

⁵⁵ Evaluation of Contractor's Performance, III-b-2 – III-b-3.

⁵⁶ Evaluation of Contractor's Performance, VI-c-3 – VI-c-4.

⁵⁷ 'Contract Tops \$1 Billion Mark,' *The Viet-Nam Builders*, Vol. II, No. 6, July 15, 1967.

⁵⁸ Lahlum, p.165.

⁵⁹ *ibid.*, p.167.

⁶⁰ Allen J. Matusow, *The Unraveling of America: A History of Liberalism in the 1960s*, New York, Harper and Row, 1984, chapter 6.

⁶¹ At least in monetary terms, these projects represented less than half the value of all work put in place during the life of the contract. There were literally hundreds of large construction projects underway simultaneously all over southern Vietnam. See, for example, Letter from Brown and Root to MK, Raymond, J.A. Jones, 1 March 1966; Letter to MK, Raymond, Brown and Root, J. A. Jones from R. K. Woodhead, Project Manager, 22 September 1966; Letter to Raymond, MK, Brown and Root, J. A. Jones, Subject: Contract NBy-44105, March 28, 1967; Letter to Raymond, MK, Brown Root, J. A. Jones, Subject: Contract NBy-44105, 30 March 1967, RMK-BRJ Papers.

⁶² The contract extended to 1972, though the most intense period of construction was achieved during 1966-1968. Combined Completion Report, Basic Report, schedule XIII, 1-3, RMK-BRJ Papers. 'RMK-BRJ, The Vietnam Builders, 'The Construction Miracle of the Decade,' RMK-BRJ Papers.

⁶³ A notable exception is Carroll Dunn's *Base Development in South Vietnam, 1965-1970*, cited above. This volume, however, focuses on military construction and significantly downplays the importance and scope of the RMK-BRJ.

⁶⁴ 'Refugee Problems in South Vietnam and Laos,' Subcommittee to Investigate Problems Connected with Refugees and Escapees, US Senate, 89th Congress, 1st session, July, 1965, pp.14-15 and 87. 'Refugee Problems in South Vietnam and Laos,' August, 1965, p.143. 'Civilian Casualty and Refugee Problems in South Vietnam,' 90th Congress, 2nd Session, 9 May, 1968, pp.2 and 4. Richard Eder, 'US Refugee Plan for Vietnam Set,' *New York Times*, 31 August, 1965. Hedrick Smith, 'More Health Aid for Saigon Urged,' *New York Times*, 22 September, 1967.

⁶⁵ Inflation, Income and Incentives in Vietnam, November, 1967, National Security File, Country File, Vietnam, Box 58, Lyndon B. Johnson Library. An Investigation of the US Economic and Military Assistance Programmes in Vietnam, 1966. *USEASV*, v. I, pp.224-6. William Allison, 'War for Sale: The Black Market, Currency Manipulation and Corruption in the American War in Vietnam,' *War and Society*, v. 21, no. 2 (October, 2003), p.146.

⁶⁶ For the impact of the Tet Offensive, see Marc J. Gilbert and William Head, eds., *The Tet Offensive*, Connecticut, Praeger Publishers, 1996; and Ronald Spector, *After Tet: The Bloodiest Year in Vietnam*, New York, The Free Press, 1993. See also, Jeffrey Kimball, *Nixon's Vietnam War*, Lawrence, KS, University Press of Kansas, 1998, p.90; and Larry Berman, *No Peace, No Honor: Nixon, Kissinger, and Betrayal in Vietnam*, The Free Press, New York, 2001.

⁶⁷ 'Vietnam Work Concludes,' *The Em-Kayan*, June 1972.