

The story of Titusville and Colonel Drake



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HE is no Colonel killing the Iraqis. Anyone who studied geology or petroleum engineering heard about Colonel Drake and his first discovery of oil through drilling in Titusville, Pennsylvania, USA. The two names - Drake and Titusville -- thus became synonymous. As a student of geology in the early sixties, I dreamt of visiting Titusville. That opportunity came in 1976. The Department of Earth and Mineral Science, Pennsylvania State University, USA had confirmed my admission in the graduate school. I was very excited. However, until I reached the State College campus, I did not realise that I was right in the corner of the Mecca of Oil.

The story of oil find was no accident, rather a calculated scientific endeavour. Nevertheless, the venture had its origins in a series of accidental glimpses and the determination of some exceptional men. One among them was George Bissell, who, more than anybody else, was responsible for the

beginning of the oil industry. The story goes like this: Once Bissell was passing through western Pennsylvania. He saw some of the primitive people collecting oil from a nearby oil spring (actually oozing out from rock). Bissell knew that rock oil was being used as folk medicine to relieve everything from headache, toothache to stomach upsets, and rheumatism. It was sold as Seneca Oil named after the local Indians. The Indian chief had supposedly imparted his healing secrets (as medicine men shown in some Hollywood films) to white men. Bissell also knew that the viscous black liquid was flammable. So it could be used as illuminant -- and that it might well assuage the woes of his pocketbook. It actually occurred to him that through commercial extraction of the product he could put the spectre of poverty behind him and become rich from promoting it.

However, a new puzzle came to his mind. How could the rock oil really be used as an illuminant? Bissell aroused the interest of other investors in late 1854. A group was formed who engaged Yale University professor Silliman to analyse the properties of oil both as illuminant and lubricant. Professor Silliman carried with him one of the greatest and most respected names in the nineteenth century science, the son of the founder of American chemistry. Armed with Silliman report, which proved to be the most persuasive advertisement for the enterprise, there was less difficulty in raising funds for the venture. Soon, James Townsend, a banker in New Haven (Connecticut) joined the group. Thus

the investors were ready. But to whom would they now entrust this project?

The candidate was one Edwin L. Drake who was chosen mainly by coincidence. Drake was out of work at that time, actually on leave as a railway conductor. He however had a great attribute that could be of great value. He could be very tenacious,

arrived after an exhausting journey through a sea of mud, in the tiny, impoverished village of Titusville having a population of 125, tucked into the hills of northwestern Pennsylvania. Titusville was a lumber town, which was expected to die when the surrounding hills had been all logged and that the wild would reclaim the site.

that exists among drilling crews even today -- all over the world. The tradition for driller's work now was fifteen-day off and fifteen-day on. The fifteen-day off mostly meant for boozing.

Nevertheless, Drake soon devoted himself to erecting the steam engine that would power the drill bit. The bleak winter fast

despair. Townsend sent Drake a money order as a final remittance, to close the operation. That was towards the end of August 1859.

Drake had not yet received the money order when, on Saturday afternoon, August 27, 1859, at sixty-nine feet, the drill dropped into a crevice and then slid another six inches. Work was called off for rest of

was drilling in well No 7 in Sylhet geological structure in late 1986 for gas, suddenly the samples collected showed traces of oil. The foreign consultant did not believe the initial results. Petrobrangla bosses were puzzled. They could not decide the next course of action. But the geologists and field lab personnel were excited. They wanted to carry out testing and completion for oil. Finally decision was taken to complete testing. It was done and oil was discovered for the first time in Bangladesh. Production of oil continued up to 1994. Then it got suspended for some mysterious (technical) reasons, which was never disclosed. The then President HM Ershad was very upset when I wrote a comment as Joint Secretary of the Ministry on the initial report that it could be a one well wonder. I was called to explain and I did. But he was perhaps not convinced. However, no oil well was discovered since then.

As for Titusville, Drake's firm conviction and tenacity proved the result. Farmers along the oil creek rushed into Titusville shouting, "The Yankees have struck oil." The news spread like wildfire and started a mad rush to acquire sites and drill for oil. The population of tiny Titusville multiplied overnight, and land prices shot up instantaneously. But for Drake, things did not go well at all. He was improvident, not a good businessman, indeed a gambler of sorts when it came to commerce. By 1866, only seven years after his discovery of oil in Titusville, he had lost all his money, and then became a semi-invalid, racked with pain, living in poverty. In 1873, the State of

Pennsylvania granted him a small lifetime pension for his service, bringing him some measure of relief in his final year from his financial difficulties, if not his physical pain.

Success with the drilling at Titusville did not, however, guarantee financial success immediately. It meant new problems. What were Drake and uncle Billy to do with the flow of oil? They got hold of every whisky barrel they could scrounge in the area, and when all barrels were filled they built and filled several wooden vats. Unfortunately, one night the flame from a lantern ignited the petroleum gases, causing the entire storage area to explode and go up in fierce flames. Meanwhile, new wells were drilled in the neighbourhood, and more rock oil became available. Supply far outran demand, and the price plummeted. With the advent of drilling there was no shortage of rock oil. The only shortage was now of whisky barrels, and they soon cost almost twice as much as oil inside them.

By early 1973, almost 114 years later, the price of oil per barrel stood at US\$ 2 (from US 2 cents in 1860), which shot up to US\$ 11 per barrel in about four months. Thereafter, the price fluctuated between US\$ 20 to 35 per barrel. The New York Stock Market has seen the highest ever in the history of oil price -- US\$ 41.75 per barrel in mid-May, 2004. The net gains in oil initially went to the oil companies and then to OPEC.

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CHRONICLE

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one essential quality even today in the oil and gas exploration. [Unfortunately our present Petrobrangla authorities neither have the courage and tenacity nor capability to convince the government to engage them for gas exploration and development. Instead, they very easily and conveniently pass on the buck to foreign private oil companies. For instance, very recently Nico Oil Company of Canada found gas (for the second time after Petrobrangla) from an undeclared abandoned gas field in Feni when Petrobrangla sat on it for almost two decades. It's simply a shame on Petrobrangla officials]

The thirty-eight year old Drake

Drake had a daunting task to perform, drilling for oil. The investors had established a new company, the Seneca Oil Company, with Drake as its General Agent, as it was designated then. He set up operations about two miles down oil creek from Titusville, on a farm that contained an oil spring, from which three to six gallons of oil a day was collected by the traditional method. The initial capital (investment) for the venture was one thousand dollars and with that Drake tried to hire the salt borers -- or drillers -- that he needed if he were to proceed. But the salt drillers had a reputation for extreme partiality to whisky and frequent drunkenness, a practice

appeared and the entire area was covered with snow, when everybody deserted except Drake. In the spring of 1859, Drake found his driller, a blacksmith named William A. Smith -- uncle Billy Smith -- who came with his two sons. Smith knew something about what needed to be done, for he made tools for the salt-water drillers. The little team now proceeded to build the derrick and assemble the necessary equipment. But the work was very slow, and the investors were becoming more and more restive. Drake stuck to his plan. He wouldn't give up. Eventually, Bissell was the only one of the promoters who still believed in the project. Yet, no improvement was visible. In

the weekend. The next day, Sunday, the August 28, 1859, uncle Billy came out to see the well. He peered down into the pipe and saw a dark fluid floating on top of the water. He used a tin rainspout to draw up a sample. As he examined the heavy fluid he was overcome by excitement. On Monday 29 August, 1859, when Drake arrived, he found uncle Billy and his two sons attending guard over the tubs, washbasins, and barrels, all of which were filled with oil. Drake attached a common head pump and pumped up the liquid. Drake's single mindedness had paid off. Just in time. He had hit oil.

Incidentally, when Petrobrangla

Women's housing needs and rights

MASHUDA KHATUN SHEFALI

THE National Housing Policy (NHP) of Bangladesh was formulated in 1993 keeping in focus the basic objectives of providing housing to people at all strata, specially to the low and middle income groups and to those having no access to housing. The emphasis of the national housing policy was on land development, building inexpensive housing units for people in the low and middle-income groups in the cities, multi-storied buildings for government employees, hostels for working women, low cost housing in the coastal belts and inducing the private sector into the housing sector.

National Housing Authority implements the housing policies in Bangladesh. However, there seems to be certain contradictory trends of defining state mechanisms to prioritize concerns for the poor, disadvantaged women while allowing greater freedom for the private sector, though the basic principle of the NHP remains: "... the Government would play the role of an enabler over facilitator in the housing sector (Article 4.2) and not the role of a developer or provider; the government would play the provider's role only in the case of government employee's rental housing or ownership housing for the low income groups. However, it is evident that, over the last two governments' period, most of the government-built houses were for the upper grade government employees, political leaders, rather than low-income government employees or the poor people in general.

The NHP also promised special attention to housing needs for women, particularly women in difficult circumstances (Article 5.12) and disadvantaged women, such as widows, single women and women-headed households below poverty line (Article 5.14). Government initiatives in these areas, though largely rural-based, include Adarsha Gram, Asrayon, Ghare Phera, etc.

The reference in the NHP to Hostels for Working Women is found in article 5.12, which is subtitled as housing needs of women in difficult circum-

stances. But there is no mention of housing for women in general or for any other category in the long text of the NHP 1993 (or the revised 1999 NHP). There is also no other provision made in reference to protection of women's rights or opportunities in the various components of the housing programs, such as access to land and tenure or to housing finance.

As socio-cultural values and practice towards women is very patriarchal, some creative responses should be made in the NHP, so that women's special needs and interests of housing could be addressed. Due to the absence of priority or specific policy provisions, relevance to housing needs and aspirations of women, implementation of many housing and financing programmes for women are often neglected or overlooked as necessary beneficiaries both in urban and rural areas. However, Grameen Bank and some NGOs have initiated special affirmative approach targeting women as sole beneficiaries. The Grameen Bank's Housing Loan Programme, so far have served about 6,00,000 rural families. Most of these loans were issued in the name of Grameen's women members. Several larger NGOs have also provided housing support to the rural poor families, in most cases in the name of women. Though women are quite happy to be able to avail the housing loans in their names, the benefit goes to the families, as they do not have the land title. In case of separation of a woman from her family and husband, the house remains with the family and the woman ends up getting nothing.

Emerging housing needs of women

Working women's housing needs: Due to the privatisation and urbanization process, there is an increased female migration to urban areas due to the rapid socio-economic change and the shrinking economic capacity and landlessness in the rural areas. From the early eighties, the urban economy experienced a phenomenal growth of export-oriented formal sector industries and the consequent rise in demand for women labour particularly in the garment industry. Currently, this sector

alone employs 1.8 million workers of whom 80 percent are migrant women from the rural areas. The difficulties women face in finding adequate and affordable housing compounds the stress of adjusting to this urban environment. Traditional social values prevent most of the landlords from renting their house to women not living with their families or are unmarried. As a result of having few housing options, bulk of women workers are often forced to accept slum conditions at unjust rent, high insecurity, frequent harassment and living without basic utility services.

Housing needs of female-headed

Social, legal, financial and physical infrastructures are necessary to provide a framework for allowing women a freedom of choice in their shelter development. The existing institutional infrastructures leave many gaps and questions unanswered. Where can women go if they suffer harassment because of asserting their legal rights? Can financial compensation be given for inheritance from paternal land if land conveyance is not feasible? How can the assertion of women's rights to inheritance be stigmatised within the family context?

households: Economic, social and cultural changes led to a rise in female-headed households, which tend to be more among the poorest in the poor urban settlements. This group of women, often constituting the urban poor and involved in the informal sector, requires low cost but secure housing near their workplace. There should be a policy attempt to ensure this, as it is critical to women's survival since women need a secure place to stay in order to engage in productive activities and raise children. In the urban settings, women are too poor to buy land or property and sometimes even cannot develop plots allocated to them.

Housing needs of female students: Every year a large number of female students move away from their homes to larger towns and cities for college and university education. These students need a place to stay, with proper environment and security. Very few have access to the few hostels attached to some of the major educational institutes as these hostels have only a limited number of seats. So the large number of female students seek alternative rental housing sources, either the privately owned

buildings managed by landlords let out to students on individual-bed basis, or alternatively, groups of students rent a dwelling house and organise a communal living system, sharing their expenses. Both systems are popularly known as 'Mess' system, which is highly insecure, unprotected, and without any regulation of care and support. Some students seek accommodation facilities in the working-women's hostel and few stay with friends and relatives. A major consideration for all of them is affordable rental housing along with the facilities for a studying environment.

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facility for cooking meals and proximity to respective educational institutes. There is also reluctance to let out buildings to students for fear of damage or indiscipline. Normally, low quality buildings with low facilities are available to students. On the other hand, houses are let out to students at a higher rent.

Female students suffer from additional jeopardy of gender discrimination. Predominant social and cultural prejudices against women's independent living, prevent them from getting access into housing. A female student's security is an additional and prime concern unlike a male student of the same age group. This group of young women have become the sole target and victims of violence and sexual harassment across the country in the form of rape, murder after rape, suicide after rape, abduction, acid attack and trafficking. In many instances, safety concerns discourage the guardians from supporting their female wards from pursuing the desired level of education.

Hostel for female students of college and university, is a pre-condition for sustaining education of women at higher levels. In addition to the capital city, in all major cities there is a great demand for affordable and available housing for female students. Due to the unfavourable income and expenditure ratio, the private sector is unable to provide standard accommodation in privately run hostels. Establishment of improved, safe and affordable housing facilities for students only can come

from government programmes while other organisations may facilitate the government with subsidisation of costs and a social agenda and matching funds.

Housing finance and women

Rural context: The question of financing women's shelter development in Bangladesh is basically related to increasing affordability of shelter for women. But beyond affordability, it is also vital that the financial mechanisms used, correspond to the specific shelter needs of women. Although, recent

poor and the landless. Yet, as women are already disenfranchised through reduced formal ownership of property under personal laws of inheritance, it is less likely that they will be suitable candidates for loans for housing construction.

Government initiatives

Though National Housing Policy encourages the involvement of potential actors like private formal sector, private informal sector, NGOs, cooperatives, different government agencies to take up various housing related activities, upgrade shelter,

working-women and women in distressed circumstances. The Gihayan Tahbeel of GOB, administered through Bangladesh Bank approved Tk 100 million to BRAC for building hostels for 2,500 women workers of garment factories in Uttara, Dhaka with 1 percent interest, repayable in 20 years.

NGO initiatives
Nari Uddug Kendra (NUK): Currently NUK is operating three Hostel and Development Centre for women garment workers in Dhaka city with 600 seat-capacity, and two Student Hostels with 150 seat-capacity in Dhaka and Mymensingh. All the hostels are operating on a non-profit basis in hired premises.

NUK, however, realises that the magnitude of the problem of housing for all walks of women in Bangladesh, requires a multi-sectoral effort involving a planned and strategic policy approach on the part of government, private sector, international NGOs, UN agencies and other stakeholders.

YWCA Professional Women's Hostel: The YWCA hostel in Dhaka has been in operation for many years in its own building premises. The hostel has 70 seats and the boarders have higher economic status compared to garment workers.

Business and Professional Women Association's Hostel: The Business and Professional Women's Association is operating a professional women's hostel in Bailey Road, Dhaka. The boarders are usually professional women working in government or private sector and have higher economic class status.

International policy
GOB, through the Ministry of Women and Children's Affairs (MWCA), has

extend basic services within the framework of housing policy and local level planning, the responses have been grossly inadequate. The limited responses from different stakeholders are as follows:

Working women's hostel: Government response to shelter problems of working-women resulted in the construction of five Working Women's Hostel in Dhaka and in four other divisional towns (Chittagong, Rajshahi, Khulna, Jessore) starting from the '80s, administered by the Department of Women Affairs (DWA). Two more are being constructed in Dhaka, at Mirpur and Khilgaon areas. All boarders must be involved in formal sector employment. For single rooms, a boarder is required to be a class 1 employee. Applicants, below grade III employee category are rejected as a rule. In other words, this project maintained with high government subsidy, is reserved for the higher income group in which the poor are barred.

GO-NGO collaboration for female garment workers' hostel: Government's commitment to working-women's housing has all along been unequivocally positive, as it has been consistently reflected in the NHP. The NHP provided a framework for addressing housing needs for both

been involved in national and international discussions on the United Nations Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). It has accepted without reservation Article 14 (h) and Article 17 which asserts the right of women to "enjoy adequate living conditions, particularly in relation to housing...". Other sources of the right to adequate housing for women include international conventions and instruments such as the Universal Declaration of Human Rights (1948), Declarations of the Rights of the Child (1959), ILO Recommendations no.115 concerning workers housing rights (1961), Vancouver Declaration of Human Settlements (1976), Agenda 21 (UNCED, 1992), Istanbul Declaration of Human Settlements (1996), Global Strategy for Shelter to the Year 2000 (1998) and the Istanbul +5 Review (2001). The United Nations Conference on Human Settlements was pioneering in its efforts to look at issues of women's control over property and land. The Habitat Agenda resulting from that meeting called for a range of actions and reforms to give women full and equal access.

Conclusion
Social, legal, financial and physical infrastructures are necessary to provide a framework for allowing women a freedom of choice in their shelter development. The existing institutional infrastructures leave many gaps and questions unanswered. Where can women go if they suffer harassment because of asserting their legal rights? Can financial compensation be given for inheritance from paternal land if land conveyance is not feasible? How can the assertion of women's rights to inheritance be stigmatised within the family context? These questions are by no means exhaustive, nor is there a single answer for all communities. Because of social, class and gender diversity complex, however, the creation of alternatives for gender equality in shelter development should be considered. While substantive strategy may vary between different categories of beneficiaries, careful and affirmative policy and programmes should be formulated and effectively implemented.

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