



Sacred, Secular, and Ecological Discourses: the Sethusamudram Project

Carl T. Feagans

University of Texas at Arlington, Department of Sociology and Anthropology, Box 19599, Arlington, TX
e-mail: carl.feagans@mavs.uta.edu

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ABSTRACT: The nature of discourse in public culture has changed significantly if not noticeably in just the past few decades. The Sethusamudram Shipping Canal Project (SSCP) intended to create a commercial shipping lane between India and Sri Lanka demonstrates the nature of this change in discourse, which seems focused around the convergence of traditional news media and public commentary through the medium of the Internet which increases the reach of news as well as the speed with which that news arrives to its audience. Just two decades earlier, at a time when the Internet was very young, many of the same political parties and government agencies involved with the SSCP were also involved in the Babri Mosque controversy which culminated in the deaths of perhaps 2000 people as well as the destruction of an historical site, the mosque itself. While many factors are likely to have contributed, the SSCP controversy, in which thousands of concerned Hindus mobilized in protests, resulted in little if no injury or damage to property. This was, perhaps, due in part to the nature of the public discourse.

KEYWORDS: Sethusamudram; SSCP; Indian cultural resources; cultural resource management; environmental resource management; public culture

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RESUMEN: *Discursos sagrados, seculares, y ecológicos: el Proyecto de Sethusamudram.* - La naturaleza del discurso en la cultura pública ha experimentado cambios notables en el transcurso de unas décadas. El análisis del proyecto Sethusamudram Shipping Canal Project (SSCP) para la creación de una línea de navegación comercial entre la India y Sri Lanka muestra el efecto de este cambio en el que Internet ha sido decisivo debido a la mayor afluencia de noticias y a su rápida difusión respecto de los medios tradicionales de comunicación y de creación de opinión pública. Solo dos décadas atrás, cuando Internet iniciaba su andadura, muchos de los partidos políticos y agencias gubernamentales involucrados en el SSCP se vieron implicados en el polémico asunto de la Mezquita de Babri que culminó con la muerte de casi 2.000 personas así como con la destrucción del propio monumento. Aunque indudablemente hay que tener en cuenta otros factores, la controversia en torno al SSCP que ha seguido movilizándolo a miles de activistas hindúes, no ha producido daños personales ni materiales. Comportamientos tan distintos podrían explicarse, en parte, por los cambios habidos en las formas del discurso público.

PALABRAS CLAVE: Sethusamudram; SSCP (Proyecto de canal de navegación Sethusamudram); recursos culturales de la India; gestión de recursos culturales; gestión de recursos medioambientales; cultura pública

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INTRODUCTION

In today's global cultures, many actions and events occur privately among government and non-government agencies, religious organizations, corporations, small businesses, individuals, and even extremist groups like Al Qaeda. These actions and events do not become part of the public sphere until after the fact if at all. They are not discussed in the public sphere until they are part of hindsight -if at all, with pundits, subject matter experts, politicians, and lay-people offering opinions that can do little more than opine ways to improve, prevent, or predict future actions or events. Examples of this might include the Babri Mosque demolition in 1992, the World Trade Center destruction in 2001, or decisions to "off-shore" labor by Western corporations which exploit opportunities in the global south.

In recent years, the Indian Government has sought and actually approved the construction of a shipping canal that would cut a passage for commercial shipping from the Arabian Sea and Gulf of Mannar to the Bay of Bengal between the Tamil Nadu province of Southern India and the island nation of Sri Lanka. Such a canal would be unique in the world in that it would be the first of this size to link two seas through a non-inland route. The engineering has been compared to the Panama and Suez Canals in scope and, economically, it might save commercial ships as much as a full day of travel time and fuel. In addition, plans to create new ports in India and develop existing ones further could create an economic boon for the region, making it a shipping hub that has been compared to that of Singapore. The project was expected to cost nearly half a billion dollars, but the predicted return on the investment had many in business and government looking forward to the venture with great eagerness.

The Sethusamudram Shipping Canal Project (SSCP) is not, however, without its detractors, perhaps appropriately so. Government and economic supporters posited many secular arguments for the project. Conversely, Hindu nationalists and religious leaders as well as environmentalists have raised sacred and ecological arguments against the project's completion. Hindu leaders have proclaimed the limestone shoals that stretch across the Palk Strait between the Island of Ramswaram in Southern India and the Sri Lankan island of Mannar to be the bridge constructed by Lord Ram's monkey army over 1.7 million years ago ("Hanuman Bridge", 2002; O'Connor, 2007), and they have proclaimed the construction of a canal through the "bridge" to be blasphemous. The sacred connection perceived by Hindu believers is taken seriously by millions of Hindus worldwide as the cultural flow of modern globalization continues to spread Hindu people to other nations even as they maintain their ethnic and ideological identities. Another set of detractors to the SSCP are the environmentalists and it can be argued that this group has an argument that can at least partially be described as *sacred*. Environmentalism has taken on many of the same tactics in recent years

as have religious, nationalist, and ideological extremists for causes they perceive as righteous as well as of the highest priority. The conviction of some environmentalists to their causes can even be seen in their names: *Earth First!* and the *Earth Liberation Front* are but two examples, the latter borrowing from the words "liberation front" from organizations like the Palestine Liberation Front.

This paper seeks to explore the dynamics of the resulting discourse that has emerged in public culture as debate and discussion, which surrounds the SSCP controversy. It seeks also to compare this discourse with that of the Babri Mosque destruction in 1992, in which many of the same players were involved with some of the same arguments and concerns, but which resulted in great destruction of life and property. The relationships between traditional and new social movements, particularly among Hindu nationalists and environmentalists, is of particular interest since they are clearly present and clearly evolved. These explorations are in an effort to determine what role, if any, public culture has played in the actions of both groups and individuals as agents.

SSCP BACKGROUND

The desire to shorten the steaming distance and time between the Bay of Bengal and the Arabian Sea is not a new one. James Rennell, a British Geographer in the 18th century, proposed dredging a portion of the Palk Strait that crosses Adam's Bridge, though his youth and lack of prominence may have contributed to the lack of serious attention given to his suggestion (Rennell, 1930). While Rennell was young at the time he made the suggestion, he was 88 years of age when he died in 1930, just 4 years before Major Sim's report, which was published in the *Journal of the Royal Geographic Society of London*. In that 20 page report, Sim concluded that, "[t]he improvement of the navigation through the Mannar Straits is an object of so great value and importance to Indian commerce, and so much depends on the choice of place and on the means to be used, that every precaution ought to be taken to obtain the best possible advice on the subject". Sim made no mention of religious or environmental objections to the project, but such was rarely the concern of 19th century commercial enterprises. All together, there were at least 9 separate proposals to construct a canal connecting the two bays prior to Indian Independence and several proposals that were post-Independence.

In 1955, the Sethusamudram Project Committee, chaired by Dr. A. Ramaswami Mudaliar -and appointed to "examine and report on the feasibility and desirability of connecting the Gulf of Mannar and the Palk Bay by cutting a channel at the approaches to the Adam's Bridge" (Kumar 1993: 95), published their report and recommended the development of Tuticorin as a deep sea harbor along with the construction of the canal through Adam's Bridge. Since that time, several other

routes have been discussed and proposed and the canal has been an item of contention at each election year. It was in 2005, however, that the SSCP was finally approved, funding started, and the Sethusamudram Corporation, Ltd. was established (“Sethusamudram Approval”, 2005). Prime Minister Manmohan Singh announced the project commencement of the SSCP on July 2, 2005 in a speech delivered in Madurai with an expected completion by the end of 2009. Dredging began in December 2006 (“Sethusamudram Project” 2006) but was halted in September 2007 on Adam’s Bridge and July 2009 in the Palk Strait (“Project Status”, 2011).

The proposed canal itself, if constructed as originally planned, would be a two-way, 300 meter wide, 12 meter deep canal that links the Bay of Bengal to the Gulf of Mannar via the Palk Strait and Palk Bay at Adam’s Bridge. Finished, the canal would have been within Indian waters just west of the maritime boundary between India and Sri Lanka and generally aligned with the axes of wave, current, and wind directions. The length of the proposed canal was 167 kilometers and it would have accommodated vessels 215 meters long and 33 meters wide with a 10 meter draft traveling at a maximum speed of 8 knots. Unlike other canals, such as the Panama, the SSC would have no locks (L&T-Ramboll, 2005).

ECONOMICS

According to Sethusamudram Corporation, Ltd, the SSCP would provide many economic opportunities for the Tamil Nadu coast and India in general. The primary selling point has been the fact that the need to steam around Sri Lanka would be cut in both distance and time. At present, ships that wish to travel from the west coast of India to the east coast or vice-versa need to travel up to 424 nautical miles taking up to 36 hours (L&T-Ramboll, 2005). The canal stands to provide the Indian economy with advantages, particularly in the Tamil Nadu province, as it will link western and eastern ports and perhaps promote development of new and existing harbors (L&T-Ramboll, 2005; Singh, 2005). Also the project may benefit fishermen making it easier to transition between the two bays through Adam’s Bridge where previously they needed to travel through the 7 meter deep Pamban Bay. In addition, fishermen might also find protection from Sri Lankan authorities since the canal will clearly delineate Indian from Sri Lankan waters. In recent times, Indian fishermen have ventured into deeper Sri Lankan waters in search of catches not available closer to Peninsular India and this has put them at risk of being shot at by both the Sri Lankan navy and the Sea Tigers of the Liberation Tigers of Tamil Eelam, or the LTTE (The Hindu, 2009). The Project also made provision for the development of three fishing harbors between Nagapattinam and Tuticorin and to create a fishing harbor at Ramswaram, directly benefiting local fishermen. Along with the development of ports and harbors, they also predict an increase in manufac-

turing and service industries as a consequence (L&T-Ramboll, 2005).

Economic critics of the project point out that the limit of 30,000 tonnes of cargo at a 10 meter draft makes the canal out-dated before it is even built as modern heavy cargo ships load out at 60,000 tonnes with a draft of 17 meters. In addition, the canal would not benefit shipping between Africa and Indonesia since it would slow ships making the journey unnecessarily. The savings in distance would be negligible or non-existent for ships not traveling between the west and east coasts of India (Warrier, 2007). While the final project report (L&T-Ramboll, 2005) projects a time savings of a day in travel, others calculate the difference to only be about 2 hours when the reality of steaming velocity in shallow water due to the *squat effect* in which a vessel traveling in shallow waters dips lower to the seabed as it increases velocity (Warrier, 2007a; Reinking, 2010). Initial costs of the SSCP were projected to be Rs. 2233 Crores, with the bulk of the cost in dredging at Rs. 1719.6 Crores. Projected operating and maintenance costs were estimated to be an average of Rs. 5063 Lakhs per year (L&T-Ramboll, 2005). But, again, critics question these figures, particularly with regard to maintenance costs for the canal once completed since it will most certainly face siltification and sedimentation due to normal currents as well as abnormal conditions of cyclones. The canal itself is sure to face the same forces of nature that erode beaches and create sand bars in the area. Even the island of Rameswaram has undergone great changes in the last 50 years with the Pamban Bridge and the village of Dhanushkodi washed away by a cyclone in 1964. Continuous dredging would be needed to maintain the depth of the canal (Warrier, 2007a).

RELIGIOUS OPPOSITION

More vociferous arguments against the SSCP were provided by Hindu religious voices, often from religious fundamentalists and political extremist groups that have strong Hindu cultural agendas. One of the stronger, perhaps louder voices, has been that of Subramanian Swamy, the leader of the Janata (*Peoples*) Party. The Janata Party was originally created as an amalgamation of nearly a dozen opposition parties and groups in January 1977 following, and opposed to, Indira Gandhi’s Emergency in which she, as India’s Prime Minister, convinced President Fakhruddin Ali Ahmed to declare a state of national emergency. This had the effect of postponing elections, instituting curfews, allowing for search and seizure without warrant, control of the press, and general martial law, but it also had the effect of stimulating the economy because of certain reforms that had the benefit of occurring in the absence of unions and strikes. The Janata Party took power in the elections that followed, ousting Indira Gandhi, but lost its position of power after the 1980 elections -Indira Gandhi apologized for her decisions that created the Emergency, received endorsements of key national leaders and returned

to power. The Janata Party today is relatively small but active in the state of Tamil Nadu, where the SSCP is centered.

Swamy has been no stranger to controversial topics and, in response to the 2011 Mumbai bombings, he stated that a Ram temple should have been rebuilt at the site of the destroyed Babri Mosque, that all mosques should be removed from Hindu temples, that conversion from Hinduism to any other religion should be prohibited, and that non-Hindu votes should be restricted (Swamy, 2011). Clearly Swamy is a Hindu fundamentalist and an Indian nationalist, and his opposition to the SSCP was consistent with this. In 2007, Swamy stated, "I am not opposing the project. My contention is that alternative routes are available to spare this religious and sentimental bridge from the dredgers. The managers of the project are atheists and have no qualms about erasing the cultural and religious symbol. The Centre should not have taken an arbitrary decision to dredge through the Sethu without studying the feasibility of alternative routes" ("SC Tells", 2007).

Swamy's contention was that Adam's Bridge, which Hindus call the Ram Setu, was an artificial bridge, created over 1 million years ago by Hanuman's monkey army at the behest of Lord Rama who needed the causeway in order to cross the sea into Sri Lanka as a means to effect a rescue of his wife Sita. This is based on the Ramayana, the oldest version of which can be dated to 400 BCE, and outlines a story that describes the journey of Rama, who has been banished by his father from Ayodhya to live in the wilderness with his wife, Sita. While out hunting, Sita is kidnapped by the demon-lord Ravana and taken to Lanka. Rama discovers this and sets out to rescue her but is confronted with the ocean. He threatens to shoot the ocean with an arrow from his bow, but the ocean convinces him that there's another way: a bridge can be built across so that he may take his army and defeat Ravana. The ocean suggests the monkey Nala, son of Viswakarma, be allowed create the bridge, Rama agrees, and Hanuman's monkey army constructs it. Once completed, they cross and a great battle ensues. Ultimately, Sita is rescued, Ravana defeated, and Rama returns to India from Lanka with Sita at his side (Dutt, 1893).

What has, perhaps, angered Swamy and other Hindu nationalists most is the insistence by certain supporters of the SSCP that there is no evidence for an artificial structure at the site of Adam's Bridge (Ram Setu), and that Rama is a mythical character in a story -not an historical figure. One such supporter was Dravida Munnetra Kazhagam (DMK) Chief Minister Karunanidhi who stated that Lord Rama is a mythical character and questioned his qualifications as an engineer to build a bridge. The slight was more than an impartial observation and perhaps had an intent to provoke -which it did. In September 2007, Karunanidhi was quoted as saying, "Lord Ram is an imaginary character and Ram Sethu is not a man-made bridge. The Centre should not do anything to disturb the Sethusamudram project" ("Lord

Ram", 2007). The religious objections to the SSCP began perhaps in 2002 when Hindu nationalists claimed NASA photos of the Palk and Mannar Bays revealed the Ram Setu, the bridge built by Lord Rama (Gledhill and Page, 2007). It was even circulated in the media that NASA itself confirmed the man-made origin of the shoals ("Hanuman Bridge", 2002), but NASA officials quickly rebuffed this misunderstanding of the agency's data, stating they can make no determinations regarding human origins of the shoals, only that there exists a chain of sandbanks commonly referred to as Adam's Bridge ("Hanuman Bridge", 2002; Gledhill and Page, 2007) and in 2007 Indian scientists concluded the formation was a geologic one.

Increasingly, the secular government and the Sethusamudram Corporation pressed forward in its efforts to keep the canal project progressing. After the Prime Minister's announcement in 2005 that the project was a go, Hindu nationalists began to step up their objections. In May of 2007 the Lok Sabha, the lower house of the Indian Parliament, was prevented from conducting business by the BJP (Bharatiya Janata Party) which protested the government stance that there was no archaeological evidence for artificial construction of the Ram Setu. At this point in time, the SSCP as a project was progressing on time and dredging was well-underway ("Not Ram", 2007). In response to the objections raised by leaders and members of Hindu nationalist organizations like the BJP, the VHP (Vishwa Hindu Parishad), and Janata Party, an affidavit was filed by the Archaeological Survey of India on September 10, 2007 with the nation's Supreme Court. In this affidavit, it was concluded that Adam's Bridge (Ram Setu), is a natural formation of shoals and sand bars and not an artificially created "bridge" (Das, 2007). The affidavit was quoted as including, "The Valmiki Ramayana, the Ramcharitmanas by Tulsidas and other mythological texts, which admittedly form an ancient part of Indian literature, cannot be said to be historical records to incontrovertibly prove the existence of the characters or the occurrence of the events depicted therein" (Indo-Asian News Service, 2007).

While no evidence of artificial construction has ever been produced for the Adam's Bridge feature, this affidavit had a mixed reception. It was all but praised by some Sri Lankan media outlets, where the move was referred to as "a major step in support of the secularism [which] underlines the Indian Constitution". This Sri Lankan source also stated that the Archaeological Survey of India (ASI) conclusion "gave a significant blow to the forces of religious extremism," ("India's Own", 2008). The DMK leadership in Tamil Nadu, the Indian state that stood to gain the most from the project economically, supported the affidavit as well. But this very secular response to the question of a potential religious site provoked Hindu nationalist organizations even further. Almost immediately, Rajnath Singh, president of the BJP, called for the withdrawal of the affidavit and an apology from the ASI (Das, 2007). Other BJP leaders,

such as Lal Krishna Advani (now the Deputy Prime Minister of India), appealed directly to the Prime Minister's Office and termed the ASI conclusion as "blasphemous" (Indo-Asian News Service, 2007).

Just days after the affidavit was originally filed, the Indian Cultural Minister, Ambika Soni, withdrew it and apologized for any offense of religious sensibilities. Two senior officials from the ASI involved in authoring the affidavit were suspended and Soni ordered an inquiry into the matter. As the SSCP continued to progress with its dredging, so did opposition. Renewed objections from Swamy and the Janata Party, the BJP, and the VHP were on the basis that the shoals were a religious site and place of worship and should be a protected monument, and this prompted additional court involvement. The Apex court ruled that Adam's Bridge (Ram Setu) should not be damaged in any way so the matter ended up with the Indian Supreme Court. In April of 2008, the Court asked "[h]ow is Ram Setu a place of worship," and "[w]ho does puja in the middle of the sea?" The closest temple, the court noted, was "far from" Adam's Bridge/Ram Setu at Rameshwaram (Mahapatra, 2008). From September 2007 through April 2010, Hindu nationalist organizations encouraged public protests that ranged from hunger strikes to gatherings that choked traffic in cities in the state of Tamil Nadu (Sahay, 2007). Many of the latter protesters were arrested, and much attention was garnered in the media. But the argument that may have finally put a halt to the SSCP, perhaps permanently, was not the religious one, rather the environmental one. Indeed, Swamy himself began including this in his protests in 2008 when he pointed out the region of the Gulf of Mannar was a delicate marine biosphere which would be greatly impacted by dredging (Legal Correspondent, 2008).

ENVIRONMENTAL IMPACT

Environmental concerns centered around the SSCP have largely been of two angles. One is that the biosphere of the region will be adversely affected by the dredging and subsequent pollution. The other is that the addition of a deep-water canal will potentially open the region to catastrophic damage by tsunamis that may occur in the future. Much like the religious arguments, the environmental opponents often perceive their position as "sacred". Environmental activists throughout the world have a long history of adopting sacred points of view to justify their positions. In Cape Town, South Africa, Desmond Tutu spoke at a gallery opening for the Two Oceans Aquarium which presented in 2008 an anti-whaling exhibit titled "Sacred Oceans". Here, Tutu commented, "[a]re we surprised that we can gun down innocent people in hotels, and bomb innocent children, when we can behave so barbarically towards God's creatures?" (Stern, 2008).

The natural tendency to link environmental activism with sacred duty or responsibility may make it easy for Hindu nationalists to side with environmentalists. As

Matthew McDermott writes in *Hinduism Today* (2011), "[w]herever you look in Hindu scripture, you find references reinforcing the central pillar of Hindu environmental thought: All is God, all is Divine, all is to be treated with reverence and respect, all is sacred". In addition to appealing to a sacred duty to the marine environment and coastal communities, the arguments of environmentalists opposed to the SSCP are compelling on a rational and scientific basis as well. And in the public sphere, these arguments add to the objections Indian government officials and the Sethusamudram project leaders not only had to endure, but address. The most immediately affected group of people by the construction and operation of a completed canal were the fishermen in the region who number approximately 100,000 in about 127 villages and live in close proximity to the Palk Bay and Gulf of Mannar. These residents rely on fishing, harvesting seaweed, mining coral, some agriculture, and collecting chanks (Victor, 2000; Subramanian, 2005). Chank shells are a type of conch, *Turbinella pyrum*, which is native to the region and has special religious significance among both Hindus and Buddhists (Nayar and Mahadevan, 1973). The Gulf of Mannar is already among the most ecologically stressed regions of India as coral and species of fish and shellfish as well as sea-weed are being over harvested. Fishermen complain about the decline in fish catches in Indian waters (Rajasuriya, 2000) and have been reported to seek fresh sources in Sri Lankan territorial waters ("Katchatheevu Settled", 2009).

The introduction of significant dredging at Adam's Bridge and to either side of it have many environmentalists and scientists concerned that the already fragile ecosystem of the region may not survive the ordeal (Victor, 2000). Previous studies in nearby Cochin, the second largest harbor in India, show that the short-term effects of dredging are immediate: bottom fauna are significantly reduced; and the content of the water is changed drastically with regard to turbidity, transparency, and sediment load, which affect nutrients in the water (Balchand and Rasheed, 2000). This sort of effect has many worried that the over 3600 species of plant and animal life in the region of the Gulf of Mannar may be pushed beyond being able to survive considering many are already endangered and threatened due to over-fishing and over-harvesting (Sharma, 2005; Rodriguez, 2007). The increased turbidity of the region may have detrimental effects on Phytoplanktons, the lowest link in the marine food chain, due to the imbalance it can cause on the O₂-CO₂ ratios and the subsequent impact on photosynthesis. Corals would also be directly impacted by the turbidity created by dredging, causing an already stressed organism to be further stressed and perhaps destroyed. Both of these organisms are depended upon by marine life and are necessary to provide both habitat and food for organisms higher up the food chain (Victor, 2000; Kathal, 2005).

In addition to the concerns related to fishing and the biosphere, scientists have warned against the pos-

sibility of increased danger from catastrophic tsunamis (Murty and Bapat, 1992; Ramesh, 2004; Ramesh, 2005; Kathal, 2005). Indeed, this has been a resounding argument that even Hindu nationalists opposed to the project for religious reasons have latched onto and repeated within their own oppositional voices (Swamy, 2008). Ramesh published at least two separate articles in *Economic and Political Weekly* (Ramesh, 2005a; 2005b), both emphasizing environmental devastation as a probable outcome of the SSCP and both citing the work of oceanographer Tad Murty, who originally mentioned the effects of tsunami on the Indian coastline in 1992 (Murty and Bapat, 1992), prior to the December 2004 tsunami. Murty, an Indian-Canadian professor at the the University of Ottawa and prolific writer on the topic of tsunamis, was sought after by South Asian media outlets for his expertise (Warrier, 2007). Prior to the December 2004 tsunami in South Asia, Ramesh wrote a 73 page monograph that made little mention of this danger, providing only a few sentences that describe historical records of tsunamis that affected Pamban in 1881 and Chennai in 1941. Scarcely a month after Ramesh made his monograph available, the devastating tsunami of December 2004 impacted much of coastal South Asia. In Ramesh's 2005 *Economics and Political Weekly* articles, the first published just one month after the tsunami, nearly his entire message opposing the SSCP capitalized on the fear generated by this catastrophe. In that article he begins with:

[t]he tsunami of December 26 has given us an idea of what might happen to the proposed Sethusamudram Shipping Canal. Rushing through with the project without analysing issues related to sedimentation and meteorological regimes might cause a great economic disaster (Ramesh, 2005a).

Clearly the 2004 tsunami was a significant event and provided a new consideration for all those involved in the SSCP discourse. Ramesh suggests that had the canal been operational at the time of the tsunami, it would have been considerably damaged (Ramesh, 2005a). In the June article of the same publication, Ramesh mentioned Murty very prominently, citing his recent (at the time) comments in the South Asian media which highlighted Murty's concerns that the canal would create a deep-water route for future tsunamis to travel, with the potential to greatly affect Kerala, a state on the west coast of India. Among Ramesh's conclusions is that the Palk Strait and Adam's Bridge region, with its shallow shoals, greatly reduced the effect and propagation of tsunami waves, sparing much of India's southern and western coastlines from its effects. The Sethusamudram Corporation responded to Murty's remarks in the media and published their own commentary on the corporation's website. Specifically, the corporation addressed canal alignment issues raised by Murty. They noted that tsunami waves were refracted by the coast, so alignment

in that direction would be counter productive and the alignment toward the north-west would be optimal from the standpoint of avoiding tsunami wave propagation, but would divert shipping traffic closer to the coastline and thus delicate marine habitats. In addition, they noted that the currently projected alignment of the canal's exit would cause any tsunami waves propagated through the canal to dissipate parallel to the Indian coast and not toward it, thus no additional danger to Kerala would be generated do to an operational SSCP (Sethusamudram Corporation, Ltd., 2011).

In 2008, Murty participated in an interview with an online South Asian media outlet in which he clarified his earlier position:

[I]n January 2005, following a question to me from a reporter, I said that widening and deepening the Sethu Channel will provide a route for some of the tsunami energy to travel and impact South Kerala. My position on this is still the same. However, on the overall project, my opinion is not useful to anyone. Please note that I am a meteorologist and physical oceanographer. I am not an economist, ecologist, archaeologist, and in those aspects I am a lay man (Warrier, 2007).

This is interesting for a discussion on public culture since it shows how one expert opinion can sway the voices of many. It also demonstrates how that opinion can be mined for conclusions and supporting sentiment where it might not truly exist. Murty is clearly an expert on tsunamis and their effects, but in this interview, he readily admits that his opinion is limited by a lack of information and data analysis. Where Ramesh states "Murty's observation on SSCP is based on an in-depth analysis of the various computer models proposed by tsunami experts around the world" (Ramesh, 2005b), Murty says, "I have not seen any of these reports. It is quite possible that the Ramar Sethu might have had some impact [on preventing wide-spread destruction in Kerala]. However, until and unless I do a very detailed numerical model on this aspect, I cannot say with any certainty the influence of these on tsunami travel" (Warrier, 2007). Ramesh's article goes into some detail regarding the "various computer models," summarizing their results and data. So, while it is clear that Ramesh based his own opinions on detailed analysis, he may have been relying on an assumption that Murty did as well. One point that Murty did clarify is where his concern regarding the construction of a canal and its role for future tsunamis originates. In the same interview, he cites the effect that an inland canal had in British Columbia, Canada during the tsunami which resulted from the Alaska earthquake in 1964. The largest amplitude of the tsunami came at the end of the 40 km canal that links Port Alberni to the Pacific Ocean due to quarter-wave resonance amplification. In this effect, the wave is amplified because the path of the wave itself is narrowed (Fine et al, 2009). Murty also clarified that he only objected to a east or south-east orientation of the

canal's Bay of Bengal entrance, stating that any other orientation would "minimise the probability of tsunami energy from future events to be funneled significantly into" it (Warrier, 2007).

The SSCP is very clearly a project that created debate and heated discourse in the sphere of public culture. The secular ideals of a grandiose national project that has a potential to create economic progress for the region of Tamil Nadu as well as for India has a great appeal to a secular government and secular business interests. The perceived sacred space of the region, which includes the Ram Setu / Adam's Bridge formation as well as the Gulf of Mannar and Palk Bay biospheres, played a significant role in mobilizing both the religious public and the environmentally concerned. The lines between political agendas and power plays on the one hand and genuine concern for religious, economic and environmental outcomes on the other seem continually blurred in the discourse on the SSCP. Economic arguments are very secular points of view; and religious arguments are clearly sacred. But political and environmental arguments appeared to find ground on both sides, traversing sacred and secular perspectives through the public sphere of the discourse.

The Bharatiya Janata Party (BJP) was, and still is, a prominent opponent of the SSCP. During the debates and political discourse following the Prime Minister's announcement of the Project's commencement, the BJP led and organized protests in opposition. According to Appadurai (2004), the BJP "increasingly rests its credibility on its stance on cultural heritage and historical correctness from a Hindu point of view [and] its politics has become steadily more hawkish" but he notes that they have also made a point to "equate modernity with technology" (pp. 104-106). Just a few years prior to the SSCP's commencement, the BJP was the controlling party in Indian government and, as a political party, it was in favor of the construction of the canal. Indeed, the Prime Minister from 1996 to 2004 was Atal Bihari Vajpayee, an early leader of the BJP and the plan to construct the SSCP channel through Adam's Bridge was decided by his government in 2002 (One India, 2007). The switch to opposition of the project by the BJP may have been in part due to a need to oppose the new UPA (United Progressive Alliance) government, the party which formed just following the 2004 elections, but there were clearly those within the Hindu nationalist parties and organizations who took opposition based on sacred arguments seriously. In September 2007, Hindu leader and former member of the Lok Sabha, Ram Vilas Vedanti, offered a financial reward for anyone willing to cut out the tongue or behead those who "besmirched Rama's name". Vedanti later stated that he did not issue a "fatwa" but was misquoted and the BJP echoed this, but not before dozens of DMK workers attacked the BJP party headquarters and a BJP party leader's house in Chennai ("BJP Office", 2007; "VHP Leader", 2007). This was perhaps the most violent clash between supporters and the opposition to the SSCP.

India is no stranger to violence as a result of Hindu nationalist mobilization, so it may be remarkable as well as curious that more significant violence didn't accompany the Sethusamudram protests when compared with the Babri Mosque demolition in 1992, particularly since many of the same players were present. A primary factor is probably that the Babri Mosque, situated in Ayodhya in Uttar Pradesh was routinely visited by thousands of people each year, whereas the Ram Setu is less accessible and more poorly delineated than the architecturally obvious Babri Mosque. In addition, the SSCP controversy featured Hindu versus Hindu for the most part, albeit fundamentalists versus liberals and secularists. The Muslim population, a principle actor in the Babri Mosque controversy, remained largely silent in the SSCP controversy, even though the geographic name of the site, Adam's Bridge, is Muslim in origin. The Islamic story is that the father of mankind, Adam, being banished from Paradise, which was in modern day Sri Lanka, crossed over to India from Eden on Adam's Bridge, which was washed away by the sea behind him as he walked, cutting off all prospects of return (Percival, 1883).

In 2009, the "Report of Liberhan Enquiry Commission on Demolition of Babri Masjid" was filed with the Indian Parliament and, in it, was the conclusion that the demolition of the Babri Mosque was coordinated by the Sangh Parivar -the Family of Associations- comprised of several dozen smaller Hindu Nationalist organizations, including the BJP, which was the party of the soon to be Prime Minister, Vajpayee. The report stated that, "[a]s the inner core of the Parivar, the top leadership of the RSS (Rashtriya Swayamsevak Sangh), VHP (Vishwa Hindu Parishad), Shiv Sena, Bajrang Dal and the BJP bear primary responsibility' in the mosque's destruction. The destruction occurred when a political rally of over 150,000 Hindus turned violent, and this destruction sparked communal riots throughout South Asia, primarily in Pakistan and India, including major cities like Mumbai and Delhi, which resulted in the deaths of more than 2,000 people. Many of these were initiated by Muslims in response to the Mosque destruction (Engineer, 2002), but the riots in Mumbai in 1992 and 1993 were organized by Shiva Sena, which "has the longest record of organizing anti-Muslim sentiments and activities in Mumbai" (Appadurai, 2006). In spite of all this, the BJP gained significant political traction, perhaps because it allowed other members of the Parivar to play more active roles in the communal violence, putting the BJP in a position to promise an end to communal violence and a "riot-free" India (Engineer, 2002).

The 2009 Liberhan report shows that much was kept from the public sphere during the planning of the of the Babri Mosque demolition and the subsequent power shifts among Hindu nationalist parties like the BJP. In contrast, the SSCP controversy has played out nearly completely in the public sphere, allowing for the inclusion of many voices to the discourse as a result. Many of the same actors are involved such as the Bharatiya

Janata Party, the Vishway Hindu Parishad, and the Archaeological Survey of India. But new actors became involved in the SSCP controversy, including the instant media of the Internet, environmental organizations, and business interests as well as individuals within the public. Dr. R. Ramesh presented very detailed and concise arguments appealing for more study and consideration before continuing with the project and was cited by many on both sides of the argument, yet his field of expertise was medicine. The human rights organization, Manitham, published several appeals for the same and implored officials to give more consideration to the environment and indigenous fishermen in the region. The DMK filed affidavits with the Supreme Court attesting to the mythical nature of the Ramayana and that the Hindu nationalist opposition have failed to prove Adam's Bridge (Ram Setu) was vital to Hindu culture.

After spending approximately Rs. 1,020 Crore, the last dredging on the Sethusamudram Shipping Canal Project stopped on July 27, 2009 when the state-run Dredging Corporation's contract with the Sethusamudram Corporation, Ltd. ran out (Manoj, 2009). In February of 2010, the Supreme Court of India deferred judgment on the SSCP until February 2011 in order to give the Sethusamudram Corporation sufficient time to conduct a new environmental impact assessment. The committee appointed by the Court noted that "[g]iven the variations in ocean currents, wind patterns and related sedimentation as well as other phenomena related to weather, it would be incomplete to arrive at an EIA on the basis of information which is less than the annual cycle of 365 days" (Venkatesan, 2010). Chief Minister Karunanidhi's successor, Jayalalithaa Jayaram, stated in June 2011 that her party, the All India Anna Dravida Munnetra Kazhagam (AIADMK), was never in favor of the SSCP and "would not want the project completed" (Venkatesan and Sunderarajan, 2011). Most recently, the ASI has remained silent on controversial issues such as Ayodhya and Adam's Bridge, even of its own past stance on these topics (Subramanian, 2011). Finally, in September of this year, the chairman of the Intergovernmental Panel on Climate Change (IPCC) as well as the panel assessing the viability of an alternative site for the SSCP visited Rameswaram island, including Dhanuskodi at the eastern end nearest Adam's Bridge. Because of the length of time that has passed since the last dredging in July of 2009, it is expected that the dredged locations have back-filled with sediment. The project is not likely to be restarted (Raja, 2011).

CONCLUSION

Many of the of information sources which allowed this narrative to be retold came from news media which publish their work primarily on the Internet, either in concert with print media and television news, which are local to specific regions of South Asia, or solely in electronic form. In either case, the discourse that emerged and evolved found its way into public culture

and was available not only to South Asians wherever they were in the world, but also to anyone interested or concerned with the canal project. Unlike much earlier events that involved mobilized civic and nationalist activism, such as the events that led up to the violent demolition of the Babri Mosque, the more recent debates and discourse that culminated in the relatively peaceful abandonment of the plan to cut through Adam's Bridge occurred during a period in which Internet journalism has flourished. While this in no way suggests a cause of reduced violence and destruction when compared to the Babri Mosque demolition, the correlation is nonetheless striking. Many of the same organizations and individuals were involved in both events, though geography as well as a lack of significant Muslim involvement may have contributed to the restraint in violence. However, thousands of concerned Hindus did mobilize even though most had not previously visited Adam's Bridge or even Rameswaram Island; and, while Muslims make for an effective other to incite Hindu nationalist sentiments, so do, it seems, secular Indian government and business organizations and individuals. Appadurai (2006, p. 130) wonders if we are witnessing the "birth of a new global system of power, politics, violence and its dissemination, completely outside the structure of the international system [...] a full-scale alternative global polity, with full access to lethal technologies of communication, planning, and devastation?" His prediction, however, is not all doom and gloom as Appadurai sees these technologies of communication as perhaps having as much potential to counter the "worldwide trend to ethnocide and ideocide" (p. 137) and suggests that a new, technologically enabled form of public culture can be the space where battles of "peace and equity" are to be fought.

The environmental battle is the one, however, that may have the most traction. Guha and Martinez-Alier (1999) observe that there are often two perspectives of environmental concern. One is of ecological protection as a philosophical imperative. The other is born of survival for indigenous populations—a need to preserve ways of life that are rooted in the local ecology. The environmental needs of the waters surrounding Adam's Bridge appeal to both perspectives since the danger to habitat may have a profound effect on fishing as well as ecological diversity.

The discourses surrounding the Sethusamudram Canal Project found themselves naturally at home on the Internet with on-line news media. But more than a place to reprint journalistic reports, opinions and editorials, these venues also afforded the ability for the public to comment and interact. In addition to commercial news venues that redistribute for wire services like the Tamil News Network and government or corporate websites that post official positions and reports, there were also semi-journalistic and personal sites such as blogs and discussion forums that allowed these conversations to take place. As struggles for peace and equality continue around the globe, even in Western, developed nations, the instant ability for individual actors to share text,

images, and videos through modern communications networks like cellphones and the Internet will continue to play a greater part in determining the outcomes of the struggles.

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