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## HOLY WARS? TEMPLE DESECRATIONS IN MEDIEVAL INDIA

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# *Holy Wars?* Temple desecrations in Medieval India\*

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## **Abstract**

We construct a unique geocoded dataset on temples, dynasties and battles in medieval India and propose a test to identify the motive for observed temple desecrations in that period. We test two competing historical narratives of temple desecrations. The first focuses on the idea of iconoclasm, i.e. destruction of religious sites and imagery deemed heretical, as embedded in Islamic theology. The second suggests that desecrations were driven by political considerations and hence occurred mainly during military battles. We use a novel instrument of Muslim ruler assassinations to address the potential endogeneity in our battles related variable. The results show that Muslim states did not desecrate temples because they were there, but only during the course of battle, probably to diminish the authority of the rival Hindu state. The battle events are crucial, the probability of temple desecration increases by over 30% when the Hindu-Muslim battle outcome is in favour of a Muslim state. Whether a temple was within the territory of a Muslim state does not impact the likelihood of its desecration. Our findings are consistent with the hypothesis that political tactics were the main stimulus of temple desecrations by medieval Muslim states.

**Keywords:** Conflict, religion, iconoclasm, politics, assassination.

**JEL Classification:** D74; N35; N45.

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*“When Sultan Mahmud, the son of Sabuktigin, went to wage religious war against India, he made great efforts to capture and destroy Somnath, in the hope that the Hindus would then become Mohammedans.”<sup>1</sup>*

- Zakariyah Kazvini, 13th century Persian Chronicler

*“The prophet Mohammed took down idols with his bare hands when he went into Mecca. We were ordered by our prophet to take down idols and destroy them, and the companions of the prophet did this after this time, when they conquered countries.”*

- ISIL narrator on destruction of Mosul antiquities

## **1 Introduction**

What is the relationship between religion, violence and practice of image-breaking? The debate has shrouded popular imagination recently, with some observers lamenting the start of the 21st century as a “newly iconoclastic era” (Klausen, 2009). From desecration of the Bamiyan Buddhas by the Taliban in 2001, to the ravaging of several religious and cultural sites by the Islamic State in Iraq and Syria, the global specter of religious iconoclasm has stood out. The primacy of religious doctrine in targeting icons is however complicated when we consider two key “iconoclastic” events of the past decade. The first was al-Qaida’s destruction of the World Trade Center, described by some as the ‘the ultimate icon of capitalism’ (Noyes, 2013). Similarly, the toppling of Saddam Hussien’s statue in Baghdad, at the end of US-Iraq war in 2003, received prominence as an act of ‘iconoclasm’.

Our study, in this backdrop, investigates the determinants of temple desecrations in medieval India. To enable our empirical exercise we constructed a composite geo-coded panel dataset with temple locations, temple desecrations, battles, and territorial boundaries over five and a half centuries. We began with the temple desecrations dataset assembled by Eaton (2000)

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<sup>1</sup>Somnath was a medieval Hindu temple famous for having been desecrated multiple times during Islamic invasions.

from year 1192 to 1720 AD. The next step was to identify existing temple locations over that period. We located the sites of medieval temples using maps of key religious and cultural sites by Schwartzberg, Bajpai, and Mathur (1992). We also demarcated the territorial bounds of ruling states utilizing the maps on medieval states by Schwartzberg, Bajpai, and Mathur (1992). This was supplemented with other state related characteristics, specifically cause of ruler death. Finally we compiled data on medieval battles in India using two different chronological sources.

Our results show that Hindu-Muslim battle outcome is the main determinant of temple desecration. Specifically, the likelihood of temple desecration increases by over 30% when a Muslim state won against a Hindu state. Whether a temple was present within a Muslim state does not affect the likelihood of its desecration.

Straightforward estimates of the battle outcome variable is likely to be endogenous. Desecrating temple of a shared royal deity could have united the Hindu states to jointly wage war against the responsible Muslim state, the resulting alliance potentially affecting the battle outcome. The reverse causality would induce a downward bias in ordinary estimate of the battle outcome variable. On the flipside, the wealth from ravaging temples could have enabled Muslim states to mount a stronger offense in battles, leading to an upward bias in the estimation. In addition, our sample of temple desecrations is likely a lower bound of the actual desecrations and this measurement error could also lead to a bias in the coefficient of the battle outcome variable.

We use a novel instrument of Muslim ruler assassination to address the potential endogeneity of battle outcomes. Our intuition is based on the absence of fixed rules of succession among the medieval Muslim states worldwide (Hurewitz, 1968). Consequently Muslim states were rife with violent succession tussles, manifesting at their most extreme in the form of ruler assassinations. The Indian Muslim states that experienced ruler assassination were likely to be weaker in the aftermath, hampering their capacity to initiate or win battles against Hindu states. Importantly, these states would have been less likely to thwart opportunist attacks by their Hindu rivals. That

violent succession tussles were a characteristic feature of medieval Muslim states worldwide, and therefore arguably exogenous to local time varying unobservables, underwrites the validity of our instrument.

Our results empirically substantiate the political motive hypothesis of temple desecrations proposed by Eaton (2000). According to this hypothesis royal temples were the seat of political authority of their patrons, and were systematically destroyed by Muslim states during the course of battle to delegitimize their Hindu rivals. The results are also in line with the wider literature on religious iconoclasm. Noyes (2013) in his seminal study of iconoclasm asserts that the processes involved in destruction of sacred images are the same as those involved in political construction of a state. Desecration of religious sites is part of a larger political program to assert competing values or beliefs. Through case studies such as rise of Wahhabism in Saudi Arabia and French revolution in the past, to the more recent Balkan wars, the author shows that “image-breaking” typically occurs during times of conflict, territorial expansion and war.

We also test for alternative explanation of our results. For example, if the Muslim states only desecrated temples when they first brought a territory under control our results would not completely rule out iconoclasm as the main stimulus of temple desecrations. We show that peaceful transition of power, unlike violent transition through battles, does not impact the likelihood of desecration. This allows us to rule out the “first opportunity” explanation of our results. Temple desecrations could also have been an unintended consequence of Hindu-Muslim battles. If this was the case then battle incidence, and not outcome, would be consequential in explaining temple desecrations. We test for this conjecture and rule out that “collateral damage” could be explaining our results.

Our study contributes to different strands of literature. To the best of our knowledge we are the first to empirically study the determinants of iconoclasm. We add to the scholarship on ethno-religious conflict, which has primarily been studied in a modern day context (Collier and Hoeffler, 1998; Fearon and Laitin, 2003; Bohlken and Sergenti, 2010). This literature em-

phasizes the instrumental aspect of such schisms (Varshney, 2003). Religious underpinning, for them, mask deeper core of interests that are either economic (Mitra and Ray, 2014; Blattman and Miguel, 2010) or political (Wilkinson, 2006; Jha, 2014). Our results support the instrumental view in that political motives lie at the core of temple desecrations, which are by nature the most blatant form of religious schism.

We add to a nascent but upcoming body of literature that studies religion, politics and conflict in a historical setting (Iyer, 2016). These studies provide a conceptual framework to understand the salience of religion across different time periods (Iyigun, 2008; Becker and Woessmann, 2009; Michalopoulos, Naghavi, and Prarolo, 2012; Chaney, 2013). Finally, we contribute to the literature on economic and political history of India, which has mainly focused on the institutional aspects of colonial era (Banerjee and Iyer, 2005; Chaudhary et al., 2009; Broadberry, Custodis, and Gupta, 2015; Chaudhary, Gupta, Roy, and Swamy, 2015; Roy, 2016). This is primarily because pre-colonial history suffers from relative dearth of systematic event records (Bayly, 1985). Our study utilizes a newly constructed dataset to address the question of inter-religious competition in pre-colonial South Asia, following in the vein of Jha (2013).

A key implication of this paper is its contribution to the debate on past temple desecrations in India. The spectre of these desecrations continue to loom large over modern day India. Tussle over disputed sites of desecration has precipitated Hindu-Muslim riots leading to significant loss of life and property (Bacchetta, 2000). The frequency and rationale for medieval temple desecrations has also been a bone of contention among the scholars of medieval Indian history (Goel, 1998; Eaton, 2000). Through our research we hope to better inform the discourse on medieval temple desecrations.

The rest of the paper is organized as follows. We first explain the socio-political character of medieval India, specifically focusing on the surge of Islam as a political force, perception of medieval Muslims towards Indian religions, as well as the pattern and narratives of temple desecrations during that period. We discuss the dataset in Section 3 followed by the empirical

specification and results in Section 4. We address the alternative explanations of our results and perform a battery of robustness checks in Section 5. We discuss the implications and conclude in Section 6.

## 2 Historical Background

### 2.1 Islam's eminence as a political *force majeure* in medieval India

Islam was introduced to India by the Arab traders in the early eight century, forging small Muslim communities by the southern seacoasts (Metcalf, 2009). These traders performed key economic roles and were patronized by local non-Muslim kings. For three centuries thereafter the political influence of Islam stayed limited to the northwest of Indian subcontinent, where the Muslim armies annexed a small region now known as Sindh (Metcalf, 2009).

The process of Islamic expansion in India began in earnest in the eleventh century with the onslaught of Central Asian raiders into the subcontinent (Gommans, 1998). These forays, devoid of territorial aims, were initially restricted to looting expeditions.<sup>2</sup> The landscape changed by the end of the eleventh century when a wave of fresh conquests by the Persianised Turks established the first Muslim state in North India.<sup>3</sup> With its base in Delhi, the earliest state of Mamluk slaves rapidly extended its control over the entire North India. By the time of its collapse at the end of fourteenth century, under pressure from marauding Mongol raiders, the Mamluk slaves had extended its control over Deccan<sup>4</sup> and had made forays even deep into South India.

The Slave dynasty was succeeded by Islamic suzerains in Delhi, well into the fifteenth and early sixteenth century. Their territorial sway, however, was limited. This period saw the emergence of regional kingdoms whose power rivaled that of the Sultans in Delhi (Metcalf, 2009). These regional kingdoms, for example the Gujarat Sultanate in the West and the Sharqis in the

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<sup>2</sup>Mahmud of Ghazni, pivotal among these raiders, is famous for carrying out multiple looting expeditions into India.

<sup>3</sup>The Persianized Turks under the leadership of Muhammad of Ghor began the conquests in Punjab, annexed Delhi, and subsequently the two eminent Hindu kingdoms of that time, Ajmer and Kannauj.

<sup>4</sup>South West India.

East were also ruled by Muslim dynasts.

During this period the south-west region had seceded from the Delhi Sultans. The region was split into independent Muslim kingdoms which persisted well into the seventeenth century. The southern most part of India remained the last bastion of prominent Hindu kingship under the Vijaynagara empire. Political arithmetic seem to override any religious differences in this period (Talbot, 1995). The Muslim kingdoms in the south-west fought against each other and clashed, as well as sometime aligned, with the Vijaynagara empire for regional supremacy (Metcalf, 2009).

The period of regional attrition came to an end after the establishment of the Mughal dynasty in early sixteenth century. For next two centuries the Mughals held sway over an empire which, at its pinnacle, exceeded in wealth and might any contemporaneous state in the Islamic world (Metcalf, 2009). Under a unified rule, the Mughal India experienced unprecedented expansion of agricultural frontier, growth of trading networks and incremental technological innovation.

The Mughal power started to wane by the beginning of the eighteenth century, ceding space to many regional states. The most prominent among these regional polities were the Rajputs in the North West, the Marathas in the Deccan, the Sikhs in the Punjab and Jats to the south east of Delhi (Metcalf, 2009). The political motives of these non-Muslim states were seemingly, once again, not dictated by any religious narrative. Their dynasts engaged in strategic cooperation with Muslim rulers, as well as fought against each other (Metcalf, 2009).

Three stylized facts emerge from the above discussion. First, barring intermittent periods of regional attrition, medieval India experienced hegemony of Islamic dynasties who ruled primarily from Delhi and its vicinity. The authority of dynasts occupying the seat of power in Delhi was almost absolute in North India, where as they faced more resistance in the Deccan and in South of India. Finally, political ambition rather than religious zeal seem to have determined the inter-state feud.



## 2.2 Medieval Muslim perception of Indic religions

According to an Islamic tradition idolatory originated from India and the pre-Islamic idols in Arabia were of Indian origin (Friedmann, 1975). Another tradition indicates that the Brahmins of India used to travel to Mecca in pre-Islamic times to worship the idols (Friedmann, 1975). These traditions imply that the association of idolatory with India among the medieval Muslims was quite strong (Friedmann, 1975).

Three schools of Islamic jurisprudence within Sunni Islam held sway in medieval India; and these schools have historically held different positions on the treatment of Indic religions. For example, the Shafi'i and Hanabali schools of Islamic law considered all Indic sects as polytheists, and some of their leading scholars even advocated violence against Hindus (Benthall, 2005). Al-Din Barani, a prominent thirteenth century scholar advocated that a Muslim king should not merely be content with imposing religious tax (*jizya*) on his non-Muslim subjects. He must strive;

*“with all his courage to overthrow infidelity and slaughter its leaders, who in India are the Brahmans...But if a king is content merely to take poll tax and tribute from the Hindus, who are cow worshippers of idols and cowdung, and the Hindus are able with peace of mind to preserve the customs of infidelity, then of course infidelity will not be liquidated....”* (Habib, Khan, and Barani, 1940)

The Hanafi school, the dominant school of Islamic jurisprudence in India, on the other hand, chose a conciliatory approach. It advocated treating Hindus at par with other people of the Book, such as the Christians and the Jews (Jackson, 2003). Hindus were to be allowed to perform their religious practices in lieu of a religious tax called *jizya*. Among the proponents of this thought, al-Biruni, an eleventh century scholar, occupies a prominent position. According to al-Biruni, Hindu idols were only erected to appeal to the uneducated who cannot comprehend the abstract. The learned Hindus, on the other hand, would not consider worshipping images

which were made in representation of God (Friedmann, 1975). In that sense, Biruni concluded, Hinduism differed minimally from the monotheistic traditions.

According to Benthall (2005) the conciliatory approach of Muslim states may have been politically unavoidable as Muslims were vastly outnumbered by the Hindu subjects. It is possible that Hindu traditions would have been accorded the derision reserved for the pagans of Arabian peninsula, had the demographic situation not been unfavourable for the conquerors (Friedmann, 1972). This is apparent in a discourse between an *ulama*<sup>5</sup> and Iltutmish, a thirteenth century suzerain of the Slave dynasty. The Sultan rejected the *ulama*'s appeal to treat subjects who continued practising Hinduism as infidels and be put to death on the grounds that:

*“India has newly been conquered and the Muslims are so few that they are like salt [in a large dish].”* Benthall (2005)

### **2.3 Pattern and theories of temple desecrations**

Having discussed the medieval Muslim perception of Indian religions, especially on the practice of idolatry, we examine the pattern of temple desecrations as well as the theories explaining it.

By the beginning of eleventh century the building of monumental temples in stone for congregational worship had become a characteristic feature across Indian subcontinent (Eck, 2012). The monumental temples, existing side by side numerous smaller structures of merely local significance, provided the setting for elaborate royal cults- especially of Shiva and Vishnu.<sup>6</sup> The buildings themselves came about mainly as a result of royal patronage.

In competition with rivals, kings sought to erect the most splendid structures, the dimensions of which would reflect their political ambitions. In other words, the temples were an integral part of regional polity, because of their embeddedness in the authority structure. Kings, great and small, shared their sovereignty with the deities installed in the temple, the community of worship overlapping with the political community. The temples also came to control

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<sup>5</sup>An Islamic scholar.

<sup>6</sup>The primary royal deities of this period.

increasing amount of revenue, as well as accumulating fixed assets such as jewels, bullion and variety of precious objects (Eck, 2012).

With this background the Muslim raiders arrived in India, and changed the landscape of worship in the country. The intimate relationship between the ruler, divinity and construction of construction of grand temple complexes was shattered in the areas that were conquered. According to Wink (2002) “if the temples were not destroyed, patronage dried up, and few great temples were built in North India after thirteenth century”. The difference in temple landscape is evident between North and South of India. In South India, untouched by early Islamic conquests, large temple structures continued to flourish until late sixteenth century. Even without large scale conversion of people local sacred geography was uprooted by these conquests. Islamic iconoclasm thus, according to Wink (2002), sabotaged the role of idols as collective symbols.

Islamic iconoclasm in Indian subcontinent became intertwined with political and military expansion. It accompanied the Islamic conquest, but once the conquest was consolidated desecrations became relatively rare. Wink (2002) associates the desecration of temples, especially during the early Islamic conquests between eleventh and thirteenth century, to Islamic iconoclastic theology. The Arabic literature on Sind and Hind from that time stands out for its obsession with idol worship and polytheism of the Indians (Friedmann, 1975). Iconoclastic motives are interwoven in the life stories of Sakbuktigin and Mahmud, the earliest Islamic invaders in India.

The iconoclastic logic is clear from the pattern of early invasions directed towards Hindu religious centres (Wink, 2002). The Islamic invaders seemed to be familiar with Hindu sacred geography (Eck, 2012). The main religious sites: Mathura, Banaras, Somnath and Ujjain, were easily identified and sequentially targeted in the eleventh century. However, Wink (2002) is careful to point the difficulty in separating iconoclastic motives from political and economic incentives. Iconoclasm escalated in part because Indian temple cities contained vast amounts of immobilized treasure (Wink, 2002).

Eaton (2000) argues that temple desecrations on the whole were outcomes of a political purpose aimed to “*delegitimize and extirpate defeated Indian ruling houses*”. As discussed above, it was the relationship between the local king and the temple complex that made the temple a target. The destruction of temples and the images were undertaken not to undermine the sanctity of the idol, but to emasculate the political authority of their patrons. The relationship between the king and the royal temple is illustrated in the following passage from *Brhatsamita*, a sixth century text:

*“If a Siva linga, image or temple breaks apart, moves, sweats, cries, speaks or otherwise acts with no apparent cause, this warns of the destruction of the king and his territory.”*

(Shulman, 2014)

Albeit less frequent, even early medieval Hindu kings are recorded to have desecrated the royal temples of their antagonists (Thapar, Mukhia, and Chandra, 1969). In that sense the medieval Islamic invaders were only following the established practice of extirpating the political legitimacy of their rivals through temple desecrations. According to Eaton (2000) this explains why temple desecrations mainly occurred during military conflicts. Once the state was established the existing temples were left alone.

Eaton (2000) suggests that desecrations happened predominantly when Indo-Muslim states expanded into the territory of non-Muslim states. This explains the absence of temple desecrations in North India during Mughal rule, in contrast to the south-western region. The main difference was that in the south-west the Mughals expanded at the expense of non-Muslim states whereas in the North the empire grew at the cost of the defeated Afghans. The political utility of desecrations became irrelevant in the north as the Afghans did not share their legitimacy with deities housed in royal temples. The theory of political stratagem is further supported by evidence that temples of lesser significance or those formerly important but forsaken by their patrons were also left unscathed (Eaton, 2000).

Having discussed the competing historical narratives of temple desecration we turn to the empirics in the following sections to test their validity.

### 3 Data and Descriptive Statistics

We embarked on a challenging data collection exercise to enable our empirical analysis. We started with the temple desecrations dataset assembled by Eaton (2000) for the period 1192-1720 AD. The next step was to identify existing temple locations over that period. This was key for us to compare locations with similar characteristic, i.e. presence of a historical temple site. The exercise was conducted by identifying location of medieval temples using maps of key religious and cultural sites by Schwartzberg, Bajpai, and Mathur (1992). We also identified geographical territories of various dynasties during that period utilizing the maps on medieval dynasties by Schwartzberg, Bajpai, and Mathur (1992). In addition we compiled data on medieval battles in India using two different chronological sources. Identification of exact location was done using Google API wherever necessary. In what follows we provide the details on collection as well as description of the main variables.

*Temple Desecrations.* We use the dataset on temple desecrations compiled by Eaton (2000). Relying on contemporary or near-contemporary epigraphic and literary sources Eaton (2000) identifies eighty incidents of desecrations “whose historicity is reasonably certain”. The dataset provides information on the location and year of the desecration, as well as the characteristics of the perpetrator. Our sample of temple desecrations should be a lower bound of the actual number of desecrations. Eaton (2000) strictly relies on evidence recorded in contemporary or near-contemporary epigraphic and literary evidence. Desecration instances codified at a later date are thus excluded. It is also plausible that some acts of desecrations were never recorded or their records did not survive (Eaton, 2000). Finally, temple desecrations are recorded as an event and it is plausible that more than one temple, in close proximity, was desecrated during an event of plunder. For example, Eaton (2000) records as an act of desecration by the emperor

Shah Jahan in Benaras in 1632 AD. However, according to a chronicle recorded by the emperor's librarian around 70 temples were desecrated in that instance (Begley and Desai, 1990).

*Battles.* Battles dataset is compiled from two different sources. Our primary source is Jaques (2007) which provides description of about 8,500 battles across the world from antiquity till the 21st century. Jaques (2007) covers battles ranging from epic engagement that lasted weeks to skirmishes with few dozen men to the side. In that sense the source is not biased towards big battles and wars. From their descriptions we teased out information such as the year and location of the battle, and identity of the battle participants. We supplemented this information by collecting data on the religion of each participant. To crosscheck our data we relied on another resource, Narvane (1996), which lists key battles in medieval India, especially between 15th and 18th century.

Overall, we could identify 240 battles during the concerned period. About 200 of these battles were identified in our primary, or primary as well as second source. The remaining forty odd were identified only in the secondary source. Furthermore, we compiled the geographical coordinates of the battle locations using Google API. Among these 77 battles involved a Hindu fighting a Muslim state, out of which 40 battles were won by a Muslim state. The second most frequent combination, with 67 incidents, was a Muslim state fighting against another Muslim state. Clearly, the medieval period was an exemplar of Muslim state expansion.

*Temple Locations.* Temple locations were obtained from maps on key religious sites by Schwartzberg, Bajpai, and Mathur (1992). We had two maps for reference for the given period. The first map cites key religious and cultural sites, including temples, for a period between 1200 and 1525 AD. The second map cites key religious and cultural sites, from 1526 to 1707 AD. Superimposing these maps on the territorial maps of modern day India we were able to identify the temple locations and their coordinates. Overall, we were able to identify 140 temple locations for the first period and 75 for the second. We were able to identify half of the desecrated temples amongst the sample of historical temple locations. We added the remaining half of the

desecrated temples to the temple locations dataset to avoid losing observations for an already rare event. To address the possibility of selection bias we will exclude this subset of temples from our analysis in one of the robustness check.

*Dynasties.* Dynasties data was obtained from eleven maps on medieval states, covering different time periods and regions Schwartzberg, Bajpai, and Mathur (1992). We identified 51 dynasties which ruled at some point of time in medieval India. The state maps were superimposed on the modern territorial map of India to identify their approximate geographical territory. We collected supplementary information such as the religion of the state, the capital location, characteristic of the rulers as well as the year when the state collapsed. Amongst ruler characteristics the cause of Muslim ruler deaths is key for our identification. We were able to identify the cause of 91 Muslim ruler deaths. About 60% of these deaths occurred under natural circumstances. Assassinations were the second most frequent cause, accounting for a quarter of Muslim ruler deaths. Remaining deaths were caused by a sundry reasons such as battle deaths, alcohol consumption etc.

Summary statistics of the main variables are presented in Table 1.

< Table 1 about here >

## 4 Empirical Specification

### 4.1 Baseline Specification

The question that we are asking is ‘what led to temple desecrations in medieval India?’ We are trying to test two competing but not mutually exclusive hypotheses – *H1*. Temple desecrations were driven by religious reasons, primarily the Islamic doctrine against idolatry. *H2*. Temple desecrations were driven by political considerations, with temples being representations of a Hindu king’s legacy and hence destroyed systematically at the end of military conflicts.

We approach this question by running the regression of the following specification.

$$D_{ikt} = \gamma_i + bB_{ikt} + mM_{ikt} + s_j X_{ikt}^j + \kappa_k + \delta_t + \varepsilon_{ikt} \quad (4.1)$$

Our spatial unit are the identified temple locations ( $i$ ) over the historical period in question. ( $t$ ) measures the decade in which both desecration and battle events were observed. ( $k$ ) records the state within whose territory the temple location ( $i$ ) was situated in decade ( $t$ ). Both desecration and battles are rare events and decade is the viable temporal dimension to record them concurrently. Moreover, setting up our estimation at the decade level should attenuate the measurement error if the event years were not recorded accurately. The flip side is that we do not identify the order of the events i.e. whether the temple desecration always happened during or after the battle. We will address the chronology issue in one of the robustness check.

< Figures 1 & 2 about here >

$D_{ikt}$  is a binary variable that takes the value 1 if a temple desecration was recorded in temple location  $i$  within the territorial confines of medieval state  $k$  in decade  $t$ , and 0 otherwise. In other words, our specification tests the factors that affect the probability of desecration, conditional on the presence of a temple.  $B_{ikt}$  measure the number of battles won by a Muslim state against a Hindu state within a given radius<sup>7</sup> of temple location  $i$  in decade  $t$ . We use battle outcome instead of battle incidence as an explanatory variable because a Muslim state should only have been able to desecrate the royal temple once it annexed the Hindu state.  $b$  is the coefficient of interest which measures the importance of political consideration in determining a temple desecration.

$M_{ikt}$  is a binary variable that indicates whether the temple location was under Muslim rule in a given decade. If  $m$  is close to zero and  $b > 0$  it would imply that Muslim state did not desecrate temples because they were there, but only during the course of war to diminish the authority of the rival Hindu kingdom. We record the Muslim rule variable as equal to 0 if we

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<sup>7</sup>We use 200 km radius as our baseline specification. We also test for other radii dimensions as a robustness check. See Table 11.



couldn't identify the concurrent state for location  $i$ . This is based on the assumption that the unidentified dynasties would correspond to very small states and would generally not have been Muslim to begin with.<sup>8</sup> We relax this assumption later on as a robustness check.

$X_{ikt}$  is the vector of other variables which capture the political-economic importance of temple location  $i$  in decade  $t$ . Particularly, we take the distance of the temple location from the nearest capital (either own or other dynasty) as a proxy for its political-economic relevance. This is based on the assumption that royal temples, which were likely to be both politically and economically most salient, would be located in proximity to the capital city of a medieval state.

$\gamma_i$  controls for any influence of temple location characteristics on desecrations. For example, Eck (2012) postulates that many of the key temples, also known as *tirthas*, were created out of natural formations such as rocks, hilltops or confluence of rivers and hence invulnerable to destruction.

Similarly, temples desecrations may have been more prominent during specific periods. Eck (2012) states that desecrations were more systematic between eleventh to thirteenth century. Moreover, economic shocks could also have impacted the likelihood of temple desecrations.<sup>9</sup>  $\delta_t$ , or decadal fixed effects, controls for these possibilities. Finally,  $\kappa_k$  controls for the unobservable state characteristics, for example the Islamic tradition the state followed, which could influence the likelihood of desecration.

We first report the results in a LPM model. A one unit increase in battle won by a Muslim state against a Hindu state increases the probability of temple desecration by about 2%. Whether a temple was within the territory of a Muslim state has no effect on the likelihood of its desecration.

< Table 2 about here >

LPM has an advantage over an ordinary logit model in that the statistical properties of LPM

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<sup>8</sup>Shirqis was the smallest Muslim state in medieval India (Iyigun, 2015) and their presence is recorded in our reference historical maps.

<sup>9</sup>Temples were repositories of wealth and plausibly susceptible to plunder during economic downturns.

are invariant to the rare event bias. The susceptibility of logit model to relative frequency of events in the sample leads to underestimating the likelihood of the event probability (King and Zeng, 2001). We will address the problem of rare event bias in logit model as a robustness check.

We now report the results using a logit model. The effect of battle outcome variable on the likelihood of temple desecration is statistically significant and expectedly much smaller. The concurrent effect of the religion of the ruling state continues to be statistically insignificant.

< Table 3 about here >

Finally we report the baseline LPM and logit models including  $(i)$   $(k)$  and  $(t)$  fixed effects. The magnitude on the battle outcome and Muslim rule variables similar to the ones reported earlier, although we lose significance on the battle outcome variable in Column (2) and (3) respectively.

< Table 4 about here >

To sum up, our structural model shows that battle outcome variable has a positive and significant effect on probability of desecrations whereas the effect of Muslim state rule is statistically insignificant. This validates hypothesis  $H2$ . i.e. Muslim states did not desecrate temples indiscriminately but during the course of war with Hindu dynasts, to extirpate their political legitimacy. The rest of our empirical analysis will be presented using a linear specification, however, we will relax this assumption during the robustness checks.

## 4.2 Endogeneity Issue

Straightforward estimates from our structural model are likely to be biased. A plausible bias is due to reverse causality. The likelihood of temple desecration affecting the presence of Muslim state is primarily through Hindu-Muslim battle outcome, which we control for in our specification. Consequently we are not worried about the endogeneity of the  $M_{it}$  variable. Temple

desecration could however itself be affecting the Hindu-Muslim battle outcome. Most medieval Hindu dynasties worshipped Shiva or Vishnu as their royal deity (Wink, 2002). Temple desecration of one of these deities could have united the observant Hindu states to jointly wage a war against the responsible Muslim state, the resulting unity affecting the likelihood of the battle outcome. The reverse causality would lead to a downward bias in the coefficient on the battle outcome variable. It is also plausible that the wealth from ravaging temples could have enabled Muslim states to mount a stronger offense in battles, which would lead to an upward bias in the battle outcome estimate.

The coefficient on the battle outcome variable could also be biased due to the measurement error in the sample of temple desecrations. As discussed earlier, our sample of temple desecrations is most likely a lower bound of actual number of desecrations since Eaton (2000) strictly relies on evidence recorded in contemporary or near contemporary sources. One could also speculate that the recording of desecration events may have been determined by the battle outcome. For example, Hindu court chroniclers could have systematically excluded desecrations that happened during their battle victories. This seems unlikely since records of desecrations carried out by Hindu states and recorded by their chroniclers exist, as discussed in Section 2.3. Furthermore, it is plausible that more than one temple, in close proximity, was desecrated during an event of plunder which is recorded as a unique event in our sample. The resulting measurement error would lead to an underestimating the effect of battle outcome on the dependent variable.

### **4.3 Identification Strategy**

We propose a novel instrument of Muslim ruler assassination to overcome the endogeneity concern in our structural estimation. Our intuition is derived from succession politics in medieval Muslim states which was often disorderly and inured with violence (Hurewitz, 1968).

According to some scholars (Anderson, 1991; Campbell, 2008; Black, 2011) the precedence for contested succession was established at the time of death of Muhammad, who did not leave

any successor nor any formal rules of succession. Unlike the European or Indic dynasties, where the principle of primogeniture was almost uniformly applied, the medieval Muslim polities continued to grapple between hereditary and elective succession norms.

In practice, any male member of the extended royal family - brothers, uncles, nephews, could be a candidate for the throne. The problem was amplified by the presence of an “electoral college” consisting of the wives and concubines in the harem as well as the imperial staff and the princes, all organizing themselves in rival groups (Hurewitz, 1968). Each of these groups allied with top military commanders and the ultimate ascension was often decided by the strongest group militarily purging the rest. Military intrusion was thus at the heart of succession politics among medieval Muslim dynasties.

The phenomena of violent succession is observed across medieval Muslim dynasties around the world. For example, between 16th and the 19th century over twenty Sultans ruled the Ottoman empire, and the crown passed hand horizontally from brother to brother during this period. Out of these, eight of the Sultans were deposed in *coup d'état* and half of them were assassinated. Similarly, among the Alawi Morocco, fourteen different incumbents sat on the throne over a thirty year period between 1727 and 1757. The disorderly rotation was facilitated by the tribal commanders (Hurewitz, 1968).

In case of the Mughals in India, the turmoil of 1657-58 stands out. The war of succession among the four Mughal princes, instigated by the imperial king Shah Jahan nominating his first born as the successor, lasted for more than a year. The war of succession culminated with the youngest prince Aurangzeb defeating and murdering his three brothers and imprisoning his father for rest of his life.

The phenomena of violent succession is also apparent in our dataset. Out of the ninety three Muslim kings for whom we could establish the cause of death, about a quarter were assassinated. Assassinations, after natural causes, were the second most frequent cause of Muslim rulers' death. Succession politics lied at the heart of these assassinations. In almost all the cases

the ruler was assassinated by someone proximate- brother, son, relative or court officials, and followed by imposing a new heir to the throne. Furthermore, succession dilemma seems to have plagued Muslim states irrespective of their strength, as shown by the succession war during the lifetime of the Mughal king Shah Jahan, who was the regent of the most powerful Indian state of his time.

We hypothesize that the turmoil following the royal assassination would reduce a Muslim state's capability to wage and win an external battle. Importantly, the turmoil would also make Muslim states susceptible to opportunistic attacks by Hindu states. The association between Muslim ruler assassination and its capacity to win battles against external foes makes our instrument relevant. Furthermore, the encompassing nature of succession turmoil among medieval Muslim kingdoms, and hence arguably exogenous to time varying state level unobservables, provides the validity for our instrument.

#### 4.4 IV Estimation

Our first stage regression takes the following form:

$$B_{ikt} = \gamma_i + eAssassinated_{kt} + mM_{ikt} + s_j X_{ikt}^j + \kappa_k + \delta_t + \epsilon_{ikt} \quad (4.2)$$

where  $Assassinated_{kt}$  is a binary variable which takes the value 1 if the ruling Muslim state  $k$  observed atleast one ruler assassination in decade  $t$ . To ensure exogeneity any battle related death is excluded, even if the battle itself could have been fought over a succession dispute. According to our hypothesis  $e < 0$  i.e. an assassination event made a Muslim state vulnerable, reducing its likelihood of winning a battle against a Hindu state.

The results are reported in Table 5. The negative sign on the  $Assassinated_{kt}$  variable confirms our hypothesis. Importantly, the Kleibergen-Paap F-stat are quite high ruling out any weak instrumentation concern.

< Table 5 about here >

We can now estimate the second stage using the following equation.

$$D_{ikt} = \gamma_i + b\widehat{B}_{ikt} + mM_{ikt} + s_j X_{ikt}^j + \kappa_k + \delta_t + \varepsilon_{ikt} \quad (4.3)$$

Where  $b$  estimates the exogenous effect of battle outcome on temple desecrations. The results are presented in Table 6. The results are qualitatively similar to our structural regression i.e. the battle outcome has a positive and statistically significant effect on the likelihood of temple desecration. The effect of Muslim rule is statistically insignificant. The coefficient on battle outcome variable is much higher than the one in our structural regression. Specifically, an additional battle victory by a Muslim state against a Hindu state increases the likelihood of temple desecration by about 33% in our most conservative specification in Column (3).

< Table 6 about here >

In the following section we will address the alternative explanation of our results, and implement a battery of robustness checks. We will only present the results in our preferred specification, that is including ( $i$ ) ( $k$ ) and ( $t$ ) fixed effects.<sup>10</sup>

## 5 Alternative Explanation and Robustness Checks

### 5.1 Alternative Explanation

**“First Opportunity” hypothesis** Our results do not completely rule out that *iconoclasm* was the main stimulus of temple desecrations by medieval Muslim states. One explanation could be that Muslim states were able to enforce their iconoclastic agenda only when they were in control of a territory. In other words, the Muslim states would desecrate temples within a territory as

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<sup>10</sup>Except in Table 9 where the comparable specification of interest is where we exclude dynasty fixed effects. Similarly, in Table 10 we report the various bias correcting specifications for rare events and are compared to the structural logit model.

soon as they took control of it. Moreover, the only way to control territory was through winning a battle.

If controlling the territory for the first time was the primary mechanism for desecration, then any peaceful transition of power would also be accompanied by higher likelihood of temple desecrations. The peaceful transition of power would be expected in cases where the Hindu state, anticipating lopsidedness in military capacity, ceded the territorial suzerainty to the Muslim state without engaging in a battle. For example, during the Mughal rule, certain Rajput kingdoms such as that of Mewar recognized the sovereignty of the Mughals, and in return were given titular ranks within the administration.

If the “first opportunity” hypothesis holds we would also expect increase in the likelihood of temple desecration under peaceful transfer of power. To address this concern, we modify the construction of Muslim rule dummy, where the variable is set to 1 if the territory was ruled by a Muslim state in period ( $t$ ) but ruled by a non-Muslim state in period ( $t - 1$ ). Since battle outcome variable accounts for the *violent* transition of power, the modified dummy variable should proxy the peaceful transition.

Results are reported in Column 1 of Table 7. The proxy for peace transfer of power does not have any effect on the likelihood of temple desecration. Hence, we rule out the “first opportunity” explanation of our results.

**“Collateral Damage” hypothesis** Temple desecrations could have been an unintended consequence of the Hindu-Muslim battles. If this was the case battle outcome would be irrelevant as we have argued so far. To test this conjecture we include Hindu-Muslim battle dummy variable<sup>11</sup> as an additional control variable. We instrument battle incidence by Muslim ruler deaths which occurred naturally. The idea being that regime change in absence of succession turbulence

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<sup>11</sup>The variable takes the value of 1 if atleast one Hindu-Muslim battle was fought within the 200km radius of temple location and 0 otherwise.

would have been likelier to affect battle incidence without determining the battle outcome.<sup>12</sup> The results are reported in Column 2 of Table 7. The coefficient on battle incidence variable is negative and statistically insignificant. In other words, the battle incidence affects the likelihood of temple desecration mainly through battle outcome. We attest that the battle outcome is crucial for explaining temple desecrations. This rules out the collateral damage hypothesis i.e. temple desecrations were just an unintended consequence of Hindu-Muslim battles.

< Table 7 about here >

## 5.2 Robustness Checks

**Excluding desecrations before battles** Our identification relies on the assumption that temple desecrations happened during or after a Hindu-Muslim battle. However, we are unable to rule out the reverse chronological order when estimating the regression by decade. To address this concern we exclude temple desecrations that occurred prior to the battle year. Out of the seven desecrations excluded, three happened only a year before the battle, and could plausibly just be a measurement error. The results are reported in Column 2 of Table 8. Our results are robust to dropping temple desecration which occurred prior to the Hindu-Muslim battle(s).

**Non-linear IV estimation** We now relax the linearity assumption of our instrumental variable model and run an IV probit regression as suggested by Papke and Wooldridge (2008). The results in Column 3 of Table 8 are similar to the one reported using the linear IV model (Column 1) and assures us that the results are not being driven by the functional form of the regression analysis.

**Standard errors correction for grouped IV** A potential problem inherent in instrumental variables is that if the instrument varies at a higher level of aggregation than the dependent

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<sup>12</sup>Muslim ruler deaths under natural circumstances is not a strong predictor of battle incidence, which further emphasises the key role of assassinations in medieval Muslim polity.



variable the resulting estimation will yield underestimated standard errors (Shore-Sheppard et al., 1996). This is indeed our case where the instrument varies at the  $(kt)$  level whereas the dependent variable changes at the  $(ikt)$  level. To address this we use a two way clustering in our instrumental variable regression following Cameron, Miller, et al. (2010). The resulting standard errors (Column 4) are similar to our preferred IV regression and therefore the statistical significance of the explanatory variables is unaltered.

**Excluding temples not in maps** As discussed earlier in the data section about half of temple desecrations were matched with the temple locations given in the historical maps. We note that six of the temple desecrations occurred at the end of 12th century, while three more desecrations occurred in the first couple of years of the 13th century. The earliest map of historical temple locations only reports it for a period between 13th and 16th century. It is plausible that some of the temples which had already been desecrated were not included in this map. Nevertheless, to avoid any selection bias we drop those desecration events where the underlying temple could not be traced on the maps of historical temple sites. The coefficient on the battle outcome variable continues to be positively and statistically significant (Column 5), although the magnitude is slightly smaller compared to the preferred IV regression. The effect of Muslim rule is still statistically insignificant.

**Impact of iconoclastic rulers** So far we have devoted our analysis to medieval Muslim state and the relevance of iconoclasm. Our results suggest that on average Muslim states did not desecrate temples which were present within their territorial bounds, but only during the course of battle with a rival Hindu state. This suggests that the political motive is a much better explanation of temple desecrations than iconoclastic agenda. However, some Muslim rulers were known for their iconoclastic beliefs. For example, Mughal king Aurangzeb was known for his puritanical approach towards practice of Islam (Sarkar, 1912). Similarly Sultan Sikander, a 14th century ruler of Kashmir, was renowned for serially desecrating temple and was famously

known as Sikander *The Iconoclast* (Kaw, 2004).

These two rulers also stand out when we look at the perpetrators of temple desecrations in our dataset. Aurangzeb and his commanders alone were responsible for 10 out of 80 desecrations in our sample, while Sikander is shown to be responsible for desecrating 3 temples. To ensure that our results are not driven by the reign of these iconoclastic rulers, we first exclude the reign of Aurangzeb and that of Sultan Sikander (Column 6 & 7). The results are uncompromised by excluding the reign of these iconoclasts.

< Table 8 about here >

**Alternate construction of Muslim rule variable** We record the Muslim rule variable as equal to 0 if we couldn't identify the concurrent state for location  $i$ . This is based on the assumption that the unidentified dynasties would correspond to very small states and would generally not have been Muslim to begin with. We now relax the assumption and altogether drop those observations where the corresponding state could not be identified. The results are reported in Table 9. Column 1 is the column of interest (without including state fixed effects) and should be compared to Column 1 of Table 6. Dropping these observations makes the battle outcome variable statistically significant and slightly larger in magnitude compared to our preferred IV estimate. The improvement is however offset by weakening of the KP F-stat in the first stage.

< Table 9 about here >

**Addressing rare event bias** One of the concerns regarding logit models in presence of rare events is that it underestimates the probability of the event outcome. This could be a concern for us as the proportion of temple desecration event is less than 1% in our sample. Literature points to various bias correcting strategies in such instances. For example, Cameron and Trivedi (2009) suggest that complementary log-log model is appropriate when the distribution of the binary outcome variable is skewed around either 0 or 1. Some event studies also use a prior correction

model called re-logit which alleviates the bias due to rarity of events (Tomz, King, Zeng, et al., 2003; Esteban, Mayoral, and Ray, 2012). Analogous to this is a penalized maximum likelihood estimation (firthlogit) which is shown to perform better than re-logit in monte carlo simulations (Coveney et al., 2015). In the following table we compare the results from the basic logit model to the proposed bias correcting models. Results are consistent across all specifications, and the reported coefficient on the battle outcome are slightly larger in Column (3) and (4) where we use the bias correcting techniques.

< Table 10 about here >

**Varying the distance for matching battles to temples** In our preferred specification, we have constructed the explanatory variable *Muslim Win against Hindu* using battles that occur within a 200 km radius of the temple in a given decade. The choice of this distance is arbitrary, so here we vary this distance to see if it affects the result. Table 11 shows the coefficient estimates of the explanatory variable and for *Muslim Rule Binary* for our preferred 2SLS specification with the distances varying from 100 km to 500 km in steps of 50 km. The coefficient remains positive and statistically significant. The magnitude decreases as we increase the distance, but this is to be expected. As we are including battles that are further away from the temple, the probability of one of these, where the Muslim ruler won, resulting in a desecration becomes smaller. The coefficient estimates for the *Muslim Rule Binary* variable remain statistically insignificant throughout. Hence, we find that changing the distance for matching battles to temples does not change our main result.

< Table 11 about here >

## 6 Conclusion

Our study addresses the relationship between religion, conflict and the practice of iconoclasm. The events of temple desecration in medieval India are the center piece of our analysis. By constructing a novel dataset on temples, dynasties and battles we are able to evaluate the two competing historical narratives of temple desecrations. The first surmises that idea of iconoclasm founded in Islamic theology was at the heart of these desecrations. The contrasting view is that temple desecrations were motivated by political benefits, designed to extirpate the legitimacy of Hindu states, and hence followed military battles.

We show that Hindu-Muslim battle outcomes are a significant predictor of temple desecrations. Whether a temple was located within the territory of a Muslim state does not affect the like of its desecration. Our findings are thus consistent with the hypothesis which accords primacy to political tactic over iconoclastic underpinning.

This does not dismiss the iconoclastic tendencies of certain medieval Muslim rulers in India. We are however able to show that iconoclasm on average did not drive the Muslim state's agenda. The medieval history literature offers some plausible explanations. The Hanafi school of law, the most prominent school of Islamic jurisprudence in India, adopted a conciliatory approach towards the religious practices of Indic religions. It advocated concession of religious freedom for Hindus in lieu of a religious tax. In that sense Muslim states in India were mainly guided by a conciliatory interpretation of Islamic law. Another explanation is that the conciliatory approach could have been politically most expedient as Muslims were vastly outnumbered by the Hindu subjects. A strict imposition of Islamic law could have come at the cost of more frequent rebellions.

This type of study is vital in the current political milieu. The rise of modern fundamentalist Muslim quasi-states such as the Taliban or the Islamic State, and their association with iconoclastic events, have led some to conflate the primacy of religious extremism amongst the Islamic

societies. Our findings tell a cautionary tale- that actions driven by seemingly religious motives could mask the political processes at play. Same caution needs to be extended when it comes to the discourse on past temple desecrations in India, which have been responsible for severe Hindu-Muslim riots in the recent past, causing great deal of harm to life and property. We hope this study will better inform the narrative on medieval temple desecrations going forward.

The study also has implications for future research. An interesting topic of research would be the relationship between memories of past temple desecrations and religious riots in India. Somewhat related, and building on the social trust theory, future research could also look at the association between past temple desecrations and economic development. Our dataset will hopefully help advance the empirical literature in this direction.

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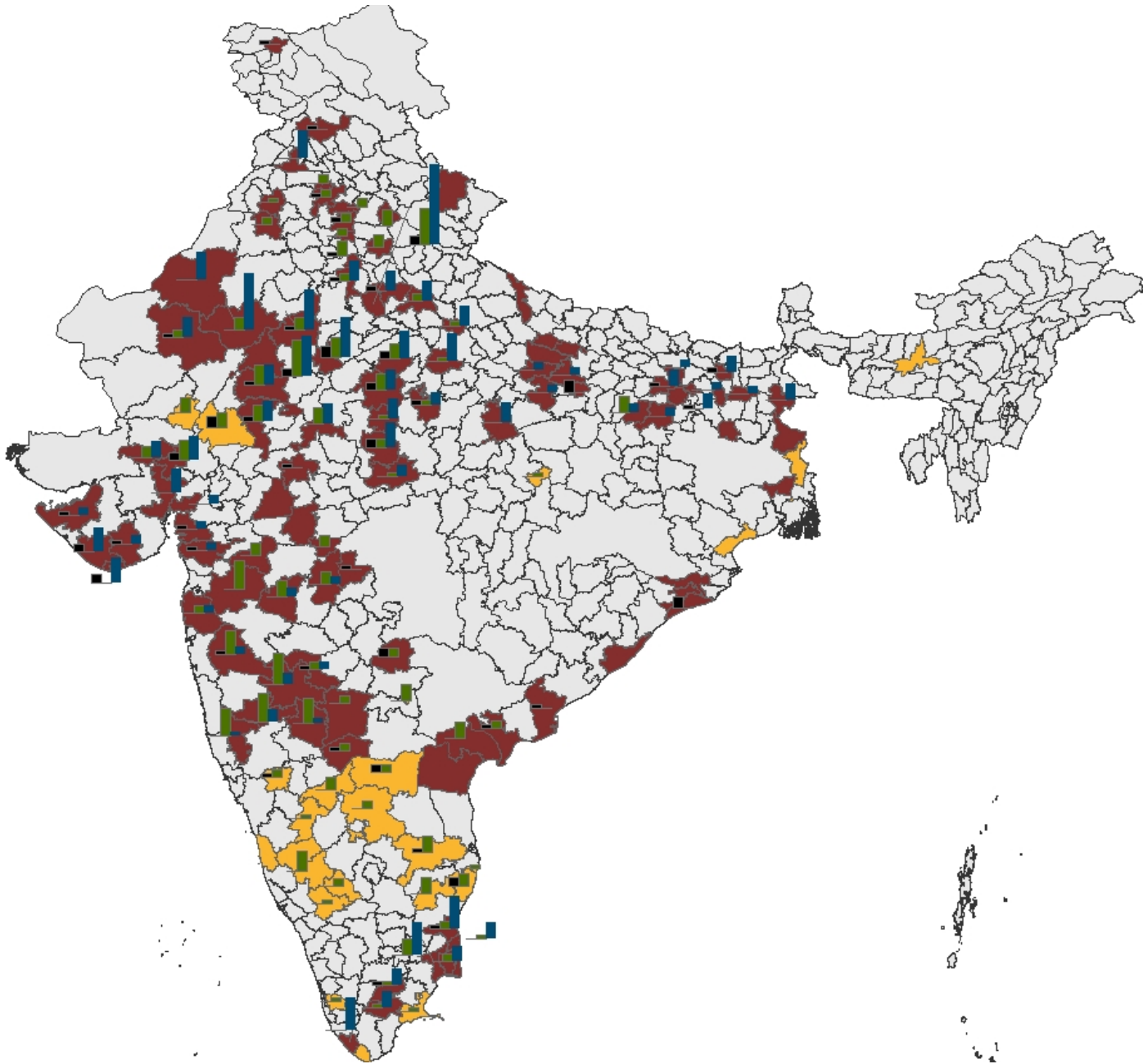
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## Tables and Figures

Table 1: Descriptive Statistics (Full Sample)

VARIABLES	Mean	Std. Dev	10p	25p	Median	75p	Min	Max	N
Desecration	0.01	0.08	0	0	0	0	0	1	11502
Muslim Rule Binary	0.34	0.47	0	0	0	1	0	1	11502
Muslim Battle Against Hindu	0.03	0.23	0	0	0	0	0	6	11502
Muslim Win Against Hindu	0.02	0.17	0	0	0	0	0	4	11502
Peaceful Transition	0.01	0.11	0	0	0	0	0	1	11502
Temple Site to Nearest Battle Distance (km)	768.32	528.73	174.53	343.11	651.50	1105.50	0	2895.16	11502
Temple Site to Nearest Dynasty Capital Distance (km)	285.24	232.72	57.74	131.43	222.61	352.40	0	1292.79	11502
Temple Site to Nearest Dynasty Capital Distance (Log)	5.26	1.12	4.18	4.91	5.43	5.87	0.10	7.16	11391
Muslim Ruler Death	0.08	0.34	0	0	0	0	0	3	11502
Muslim Ruler Death, Natural	0.04	0.19	0	0	0	0	0	2	11502
Muslim Ruler Death, Assassinated	0.03	0.21	0	0	0	0	0	2	11502

Figure 1: Geographical Distribution of Key Variables (1190 to 1720 AD)



*Notes:* The map shows the geographical distribution of our key variables for the period 1190 to 1720. The grey shaded regions are those where we did not identify any key temple site over the sample period and is hence excluded from our analysis. Dark brown areas represent regions with observed temple location which were rule by Muslim states at some point of time during the sample period. The black column represents prevalence of desecrations, green column represents battle victories for Muslim states against Hindu rivals and the blue column represents the number of Muslim rulers assassinated.

Figure 2: Hindu-Muslim Battle Outcome vs Desecrations

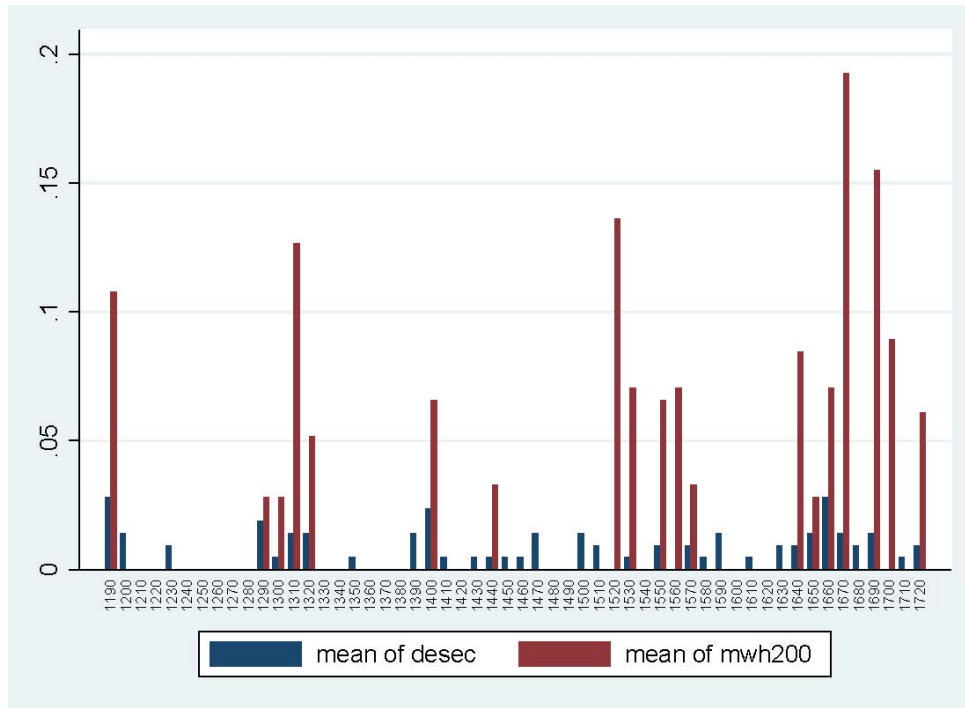


Table 2: Baseline results in LPM

VARIABLES	(1) Desecration	(2) Desecration	(3) Desecration	(4) Desecration
Muslim Win Against Hindu	0.016*** (0.005)		0.016*** (0.005)	0.016*** (0.005)
Muslim Rule Binary		0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
Nearest Capital Distance				-0.001 (0.001)
Constant	0.006*** (0.001)	0.006*** (0.001)	0.006*** (0.001)	0.009** (0.004)
Model	LPM	LPM	LPM	LPM
Observations	11,502	11,502	11,502	11,391

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0. Dependent variable is a binary variable which measures whether a temple desecration took place or not in temple location (i) in decade (t). Muslim win against Hindu identifies the number of battles won by Muslim state against Hindu state with 200 km radius of the temple location. Muslim rule binary measure if location (i) in period (t) was ruled by an Islamic dynasty or not. Nearest Capital Distance measures distance to the nearest capital city and is the proxy for political economic relevance of temple location (i) in period (t).

Table 3: Baseline results in Logit

VARIABLES	(1)	(2)	(3)	(4)
	Desecration	Desecration	Desecration	Desecration
Muslim Win Against Hindu	0.885*** (0.276)		0.892*** (0.277)	0.863*** (0.281)
Muslim Rule Binary		0.342 (0.230)	0.345 (0.230)	0.350 (0.230)
Nearest Capital Distance				-0.098 (0.092)
Model	Logit	Logit	Logit	Logit
Observations	11,502	11,502	11,502	11,391

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0. Dependent variable is a binary which measures whether a temple desecration took place or not in temple location (i) in decade (t). Muslim win against Hindu identifies the number of battles won by Muslim state against Hindu state with 200 km radius of the temple location. Muslim rule binary measure if location (i) in period (t) was ruled by an Islamic dynasty or not. Nearest Capital Distance measures distance to the nearest capital city and is the proxy for political economic relevance of temple location (i) in period (t). *The marginal effect of battle outcome variable in Column 4 is 0.006, while that of Muslim rule is 0.002.*

Table 4: Baseline estimation with fixed effects

VARIABLES	(1)	(2)	(3)	(4)	(5)
	Desecration	Desecration	Desecration	Desecration	Desecration
Muslim Win Against Hindu	0.016* (0.009)	0.013 (0.009)	0.002 (0.008)	0.937*** (0.325)	0.958** (0.470)
Muslim Rule Binary	0.001 (0.002)	0.001 (0.002)	-0.043* (0.025)	0.141 (0.288)	0.034 (0.340)
Nearest Capital Distance	-0.000 (0.001)	-0.000 (0.001)	-0.002 (0.002)	-0.103 (0.145)	-0.092 (0.167)
Model	LPM	LPM	LPM	clogit	clogit
Observations	11,391	11,391	6,906	3,564	3,564
Temple Fixed Effects	Y	Y	Y	Y	Y
Decadal Fixed Effects	N	Y	Y	N	Y
Dynasty Fixed Effects	N	N	Y	N	N

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0. Standard errors clustered at temple location level in parentheses. Dependent variable is binary measuring if a temple desecration took place or not. Muslim win against Hindu identifies the number of battles won by Muslim state against Hindu state with 200 km radius of the temple location. Muslim rule binary measure if location (i) in period (t) was ruled by an Islamic dynasty or not. Nearest Capital Distance measures distance to the nearest capital city. *The conditional logit model does not converge with inclusion of dynasty fixed effects.*

Table 5: First Stage Estimation

VARIABLES	(1)	(2)	(3)
	MWH200	MWH200	MWH200
Political Assassination Binary	-0.030*** (0.006)	-0.032*** (0.005)	-0.041*** (0.008)
Muslim Rule Binary	-0.003 (0.006)	0.002 (0.074)	0.004 (0.071)
Nearest Capital Distance	-0.009*** (0.003)	-0.008*** (0.003)	-0.013*** (0.003)
Model	OLS	OLS	OLS
Kleibergen Paap F stat	26.79	37.16	24.21
Temple Fixed Effects	Y	Y	Y
Decadal Fixed Effects	Y	N	Y
Dynasty Fixed Effects	N	Y	Y
Observations	11,391	6,904	6,904

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0. Standard errors clustered at temple location level in parentheses in all columns. Muslim win against Hindu identifies the number of battles won by Muslim state against Hindu state with 200 km radius of the temple location. Political assassination is a binary variable equal to 1 if a Muslim dynasty observed at least one assassination in period (t). Muslim rule binary measure if location (i) in period (t) was ruled by an Islamic dynasty or not. Nearest Capital Distance measures distance to the nearest capital city and is the proxy for political economic relevance of temple location (i) in period (t).

Table 6: Second Stage Estimation

VARIABLES	(1)	(2)	(3)
	Desecration	Desecration	Desecration
Muslim Win Against Hindu	0.259 (0.180)	0.245* (0.146)	0.333** (0.149)
Muslim Rule Binary	0.002 (0.003)	-0.033 (0.029)	-0.024 (0.036)
Nearest Capital Distance	0.002 (0.002)	-0.001 (0.002)	0.002 (0.003)
Model	2SLS	2SLS	2SLS
Kleibergen Paap F stat	26.79	37.16	24.21
Temple Fixed Effects	Y	Y	Y
Decadal Fixed Effects	Y	N	Y
Dynasty Fixed Effects	N	Y	Y
Observations	11,391	6,904	6,904

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0. Standard errors clustered at temple location level in parentheses in all columns. Dependent variable is a binary which measures whether a temple desecration took place or not in temple location (i) in decade (t). Muslim win against Hindu identifies the number of battles won by Muslim state against Hindu state with 200 km radius of the temple location. Muslim rule binary measure if location (i) in period (t) was ruled by an Islamic dynasty or not. Nearest Capital Distance measures distance to the nearest capital city and is the proxy for political economic relevance of temple location (i) in period (t).



Table 7: Alternative Hypotheses

VARIABLES	“First Opportunity” hypothesis	“Collateral Damage” hypothesis
	(1) Desecration	(2) Desecration
Muslim Win Against Hindu	0.310** (0.123)	0.350*** (0.135)
Muslim Rule Binary		-0.019 (0.041)
Peaceful Transition	-0.008 (0.017)	
Nearest Capital Distance	0.002 (0.002)	0.002 (0.003)
Muslim Hindu Battle Binary		-0.029 (0.103)
Model	2SLS	2SLS
Kleibergen Paap F stat	27.95	13.84; 5.13
Temple Fixed Effects	Y	Y
Decadal Fixed Effects	Y	Y
Dynasty Fixed Effects	Y	Y
Observations	6,904	6,904

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0. Standard errors clustered at temple location level in parentheses in all columns. Dependent variable is a binary which measures whether a temple desecration took place or not in temple location (i) in decade (t). Muslim win against Hindu identifies the number of battles won by Muslim state against Hindu state with 200 km radius of the temple location. Peaceful transition is a binary and is equal to 1 if location (i) in period (t) was ruled by an Islamic dynasty but by a non-Muslim one in (t-1). Muslim Hindu Battle is a binary variable which takes the value of 1 if atleast one Hindu Muslim battle was recorded within 200 kms of the temple location in period (t). Nearest Capital Distance measures distance to the nearest capital city and is the proxy for political economic relevance of temple location (i) in period (t).

Table 8: Robustness Checks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
	Baseline		Excluding desecrations before battles		IV Probit	Std. Errors Correction	Excluding temples not in maps	Aurangzeb	Excluding reign of Sikander
VARIABLES	Desecration	Desecration	Desecration	Desecration	Desecration	Desecration	Desecration	Desecration	Desecration
Muslim Win Against Hindu	0.333** (0.149)	0.302** (0.145)	0.387* (12.519)	0.333** (0.146)	0.254* (0.151)	0.359** (0.157)	0.296** (0.129)		
Muslim Rule Binary	-0.024 (0.036)	-0.023 (0.034)	-0.008 (0.522)	-0.024 (0.026)	-0.004 (0.018)	0.019 (0.045)	-0.022 (0.034)		
Nearest Capital Distance	0.002 (0.003)	0.002 (0.003)	0.126 (0.185)	0.002 (0.003)	0.001 (0.002)	0.003 (0.003)	0.000 (0.002)		
Model	2SLS	2SLS	IV Probit	2SLS	2SLS	2SLS	2SLS		
Kleibergen Papp F stat	24.21	27.95		8.79	15.46	26.22	32.86		
Temple Fixed Effects	Y	Y	Y	Y	Y	Y	Y		
Decadal Fixed Effects	Y	Y	Y	Y	Y	Y	Y		
Dynasty Fixed Effects	Y	Y	Y	Y	Y	Y	Y		
Observations	6,904	6,901	6,906	6,904	5,408	6,234	6,558		

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0. Standard errors clustered at temple location level in parentheses in all columns. Dependent variable is a binary which measures whether a temple desecration took place or not in temple location (i) in decade (t). Muslim win against Hindu identifies the number of battles won by Muslim state against Hindu state with 200 km radius of the temple location. Nearest Capital Distance measures distance to the nearest capital city and is the proxy for political economic relevance of temple location (i) in period (t). In Column (2) we exclude desecration events which happen prior to battles. Seven events are dropped from the sample. Marginal effect of battle outcome and Muslim rule is reported in Column (3). Our instrument is aggregated at higher level than the dependent variable, which could lead to underestimating of standard errors. We use two way clustering of standard errors in Column (4). Standard errors clustered at temple location level and dynasty level in parentheses. In Column (5) we restrict the sample to only those desecrations which could be matched with the historical temple locations. In Column (6) and (7) we excluded the reign of notable iconoclast rulers like Aurangzeb (1657-1707) and Sultan Sikander of Kashmir (1389-1413).

## Additional Robustness Checks

Table 9: Alternate construction of Muslim rule variable

VARIABLES	(1)	(2)	(3)
	Desecration	Desecration	Desecration
Muslim Win Against Hindu	0.331* (0.180)	0.245** (0.096)	0.333** (0.146)
Muslim Rule Binary	0.005 (0.006)	-0.033* (0.020)	-0.024 (0.026)
Nearest Capital Distance	0.003 (0.003)	-0.001 (0.001)	0.002 (0.003)
Model	2SLS	2SLS	2SLS
Kleibergen Paap F stat	8.12	26.43	8.79
Temple Fixed Effects	Y	Y	Y
Decadal Fixed Effects	Y	N	Y
Dynasty Fixed Effects	N	Y	Y
Observations	6,904	6,904	6,904

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0. Standard errors clustered at temple location level and dynasty level in parentheses in all columns. Muslim rule variable set to “missing” if the dynasty was not identified.

Table 10: Addressing rare event bias

VARIABLES	(1)	(2)	(3)	(4)
	Desecration	Desecration	Desecration	Desecration
Muslim Win Against Hindu	0.863*** (0.242)	0.838*** (0.219)	0.938*** (0.242)	0.927*** (0.254)
Muslim Rule Binary	0.350 (0.228)	0.349 (0.227)	0.352 (0.228)	0.352 (0.229)
Nearest Capital Distance	-0.098 (0.077)	-0.099 (0.076)	-0.106 (0.076)	-0.106 (0.091)
Model	Logit	Cloglog	Re-logit	Firthlogit

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0. Standard errors clustered at temple location level in parentheses in all columns. Logit model underestimates the true coefficient when events are rare. In column 2, 3 and 4 use bias correcting models.

Table 11: Varying the distance of battles from temples

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	100 km	150 km	200 km	250 km	300 km	350 km	400 km	450 km	500 km
Desecration									
Muslim Win Against Hindu	1.854* (1.047)	0.900** (0.437)	0.333** (0.149)	0.194** (0.088)	0.172** (0.078)	0.155** (0.071)	0.148** (0.068)	0.149** (0.070)	0.136** (0.065)
Muslim Rule Binary	-0.193 (0.122)	0.020 (0.074)	-0.024 (0.036)	-0.019 (0.031)	-0.036 (0.030)	-0.027 (0.032)	-0.014 (0.030)	-0.013 (0.031)	-0.019 (0.031)
Model	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0. Standard errors clustered at temple location level in parentheses in all columns. We do not report the coefficient on nearest capital distance here.