Max Weber's idea of a motionless historical evolution led to the development, in America, of what has been called the 'up-streaming' theory. The word 'up-streaming' was coined by the historian of Native Americans, William Fenton, to refer to the interpretation of past histories that lacked complete historical records. By using very recent evidence and empirical observation, a historian could attempt to reconstruct the historical background of remote and obscure past events. The idea behind this theory rests on three premises, namely that:

1. Major cultural patterns are often stable over long periods;
2. It is valid practice to proceed from the known to the unknown;
3. A good way to study beliefs about the past is by approaching them through the tools of general social anthropology.

Historians, such as Emanuele Le Roy Ladurie in his book *Peasants of Languedoc,* sought to disprove this theory, by extensively explaining that there is no human community which has remained motionless over time. Even what may once have been considered the archaic world of peasants, as was the community of Languedoc, was not as archaic as one might have imagined. It was full of movement and change. In other words, the agrarian world, which for centuries had been thought to have experienced no great evolution has, in fact, been a repository of historical change. Yet, with cautiousness and measurement, the basic principles of the 'up streaming' theory can still be applied to explain and contextualise a number of anecdotal notes that are sparsely recorded in historical documents.

In most cases, snippets and anecdotes of historical information can be a mine of information. More often than not, they hide historical realities which can only be unearthed if the briefly recounted event is substantiated by an accurate reading of the geographical background and inserted in a historical framework. This type of analysis can mean that one might need to reconstruct the past urban or rural morphology, by studying the geography of the area where the event took place. This type of work departs from the study of the contemporary geomorphology of the place concerned, and from this study one can attempt to reconstruct how the same area might have appeared when the
event being studied occurred. Such a reconstruction involves an up streaming policy, in the sense that the reconstruction would need to take a number of unverifiable aspects into consideration, yet departing from the study of the geographical terrain as it is looks like at the present contemporary state.

Using this 'up streaming' theory, I have tried to reconstruct the sequence of events behind a tragedy that in 1581 puzzled the village of Hal Kirkop. This story was recorded in the form of a very brief note in the parish register of Bir Miftuh, now archived in the parish church of Gudja.

On the morning of 23 September 1581, at Senglea's Marina, two human bodies were discovered floating in Dockyard Creek. On being recovered from the water, the bodies were found to be those of a middle-aged man and a male teenager. In both cases, the cause of death was confirmed to be drowning. The bodies were later identified as those of Antonino Gatt and Michele Farrugia, both hailing from the village of Kirkop. On further investigation, it was found that they had no connection with Senglea, and that they had not been in the whereabouts of the harbour town that day or immediately prior to the recovery of the corpses. In fact, the last time that they had been seen alive was some kilometres away, in their native village of Kirkop. Therefore, any speculation about misadventure at sea was ruled out. Instead, the cause of their death was to be attributed to a natural disaster that had hit Malta on the night of the 22 September. In Malta, September is renowned for its heavy rainfall. And the night of the 22 September was to prove no exception. As a result of torrential rain the village of Kirkop was flooded. In certain areas the water reached the height of a human being and even higher. Antonino Gatt and Michele Farrugia were unfortunate enough to find themselves in an exposed area when the floodwater reached its peak. They were swept away, their physical strength sapping when they needed it most. The currents transported their lifeless bodies along the rural valleys of southeast Malta, right down to Senglea – an incredible distance of 7 kilometres.

Using geological maps of the area, one can establish that the bodies must have drifted first from the village of Kirkop to Gudja. From Gudja, they floated all along the great fault that begins there and descends to the southeast of the island, to the area of present-day Fgura. Thus, the corpses had drifted all along the Garnaw Valley, reaching present-day Bulebel from where they were dragged down by the water torrents to the area between Żejtun and Żabbar. The bodies drifted further past the Żabbar area, from where they entered the next geological fault that descends from Żabbar to Bormla. On reaching the Mandaraggio area of the latter locality (where Dock no. 1 is now situated) the corpses were washed up and deposited at the Marina in Senglea, or as it later became known 'The Dockyard Creek'.

Contemporaries were more astounded by the passage of the bodies than by the actual fate of drowning. Violent or accidental death and death by misadventure were common occurrences in those days, and drowning hardly uncommon. Therefore, drowning on its own would not have constituted an extraordinary event and the parish priest of Bir Miftuh would otherwise not have felt the necessity of recording this event in the detailed format hereunder:

Item adi 22 di 7bro 1581 moviro afu/negati [perché ci ha piglato la chiua di la aqua [perché ha stato afue]lii noei li ha portato di casali pircop et si hafrun trovato ala marina micheli farruqie figlio di domenico et antonino gat di casali pircop.
This reference in the register of torrential rainfall can be historically verified in other sources. Bartolomeo Dal Pozzo makes direct reference to this calamity in his book *Histaria*. He writes that in 1581, due to this storm, and following a *coup d'état*, or house rebellion organised by rival knight Marthorian Leschaux, better known as Romegas, the galleys that were transporting the deposed Grand Master Jean l'Eveque de la Cassière to Rome, had to seek safe harbour at Saint Paul's Bay. Dal Pozzo recounts that heavy rain continued for some days, and the galleys anchored in the harbour suffered severe damage. Livestock was lost and two French knights, considered enemies of the Grand Master, died from injuries suffered during this storm. Dal Pozzo proceeds to state that contemporary reports recount that trees were uprooted from the *Buschetto* Gardens and from other distant places, and were carried all the way to the harbour area by the strong winds.

The veracity of this account can also be further tested through geomorphological analysis. The rural landscape of 16th-century Malta, where most of the natural valleys were still untouched, permitted fast-moving water to carry flotsam and larger objects for very long distances. In this case, the two bodies were transported from Kirkop down to Senglea's Marina, all across the zone then known as *Terra Gudia*. A basic mathematical calculation shows that in fact what has been written is true. Kirkop is 120 metres above sea level whilst the bodies had travelled for about 7 kilometres. Using the mathematical formula of opposite over adjacent results in a hypotenuse of a 3-degree slope. In other words, there were the necessary physical elements for these bodies to be dragged over such a long distance. In addition to this 3-degree slope, there is the other factor that dry valleys become active when flooded, creating undercurrents that permit bodies and large objects to be dragged over long distances.

It should also be recalled that it is a common occurrence, in Malta, that whenever there is heavy rain during this particular time of the year, the resultant flood waters transport silt, which leads to deposits in the areas trekked by the water. Such a large quantity of silt testifies to the strength of the water currents. The silt can be varied and is often quite coarse and even rocky, depositing itself at the bottom of Maltese valleys or else finding itself transported right down to sea. Indeed P. Horden and N. Purcell affirm that when large volumes of fast-moving water scour a *wadi* (in Maltese, *wied*) in the semi-arid fringes of the Mediterranean they can give rise to sediment accumulation at the valley-bottom. The Maltese islands provide a very good example of this geomorphological aspect. They suffer from prolonged periods of dryness, which can often then prompt turbulent changes in the weather. During these summer months, Maltese valleys are bone dry. The contrast with the approach of the autumn months therefore becomes evident in the drifting of the two bodies referred to above. Only heavy precipitation leading to powerful currents could have led to such a scenario, which would have been otherwise quite unthinkable in the summer months.

Therefore, these types of storms are obvious examples of the instability that both Horden and Purcell consider to be a major factor in creating and maintaining the diversity of Mediterranean microregions. At the same time, incidents such as that of the 1581 episode illustrate how the Mediterranean microregions are a changeable complex of inter-relationships between human hand and natural factors, rather than a 'sealed' physical unit at the mercy of
natural forces. The island of Malta can be taken as an example of these inter-relationships between human and natural factors. At least, during the 16th century, the local towns and villages cannot be defined as ‘sealed’ physical units. The sparse villages were linked together by an adequate road system, however rural, and communication consisted of passage lanes and potholed paths criss-crossing fields. However, communication was a strenuous endeavour and villages risked being sealed off during times of natural catastrophes. Indeed villages remained relatively small in size, in particular at the Southeastern area of Malta, typically having a population which ran to less than 500 individuals and being distanced between 4 and 5 kilometres from each other. Six years prior to this tragic event, an apostolic visitor, Mgr. Pietro Dusina, reported that Kirkop had 50 houses. According to Stanley Fiori, this figure means that the population of Kirkop amounts to about 250 individuals in 1575.

The inhabitants of the area were also very conscious of the difficult terrain since it was prone to flooding. Petitions have survived of villagers from the surrounding area, in particular those of Gudja and Kirkop, who more than once complained to the local bishops, that the parish church of Bir Miftuh was distant from their homes, whilst the villagers of Gudja added that they could not reach their parish church of Bir Miftuh during heavy rainfalls, due to the fact that this area got flooded in the rain season. Until 1592, the church of Bir Miftuh, also served as the parish church amongst others for the villagers of Tarxien, Kirkop, Mqabba and Safi. In 1592, the local Bishop Tommaso Gargallo separated these villages from Bir Miftuh and constituted two new parishes, that of Tarxien and another one comprising the three villages of Kirkop, Mqabba and Safi. The latter three villages were situated on the other side of the valley, that is, diametrically opposite to the village of Gudja. It goes without saying that the latter villagers also had difficulties in reaching their parish church at Bir Miftuh due to the long distance and this provoked a number of protests from the inhabitants. This was one of the reasons for which Kirkop, Mqabba and Safi were eventually set up as a separate parish. The church of Bir Miftuh was situated in a valley, which the villagers of Kirkop, as those of Mqabba and Safi, had to cross, with great danger in winter, to fulfil their spiritual obligations. On his part, the parish priest risked ending up confined to his home, which was situated next to the Bir Miftuh church, without the possibility of going out of the church precincts to assist parishioners in case of need, during bad weather. Thus, when a new parish was established in 1592, all the villages on the other side of the valley (opposite Gudja), that is Kirkop, Mqabba and Safi were constituted in a separate parish, with the village of Kirkop hosting the new parish church.

These were some of the reasons why in the middle of the 17th century, the inhabitants of Gudja requested the building of a new parish church on higher ground, in the place where the present church of Gudja is situated. Their request was eventually acceded to, and the stonemasonry work of the new church got started in 1650. By the turn of the 17th century, the area of the present day chapel of Bir Miftuh (during this period, there was a larger church in the form of a Latin cross, crowned by a cupola) was no longer considered adequate to serve the pastoral needs of the parishioners. Besides the location of the church, this area was also vulnerable to thefts and physical assaults, being distant from inhabited areas of Gudja. This complaint was lodged on separate occasions by the villagers.
of both Kirkop and Gudja, and was additional to the headache of the corsairing attacks which during this period were a perennial problem for all those villages situated in the proximity of the coast. As can be attested from an entry in one of the parish registers of Bir Miftuh, the area was not immune from the damages inflicted at the time by corsairing attacks. The entrance of a Turkish squadron made up of sixty galleys in St Thomas Bay and Wied il-Ghajn was extensively reported in the Gudja parish records;  

Ad 6 luglio 1614 che fu giorno di domenica venne l'armata turchesa di 60 galere e sbarco a Wed il hain (Wied il-Ghajn) per pigliar il Zejton, ma per la grazia del Signore non ha preso ne meno una creatura se ben han sarcheggiato molte case et in particolare hanno fatto grande ruina nella chiesa di Santa Catlwrina. Un giovane solamente fu preso per sua disgrazi. dallo suo passaggio ha salvorsi dove han abrugiato alcune aire e nel Zejton hanno abrugiato molto a ssculptu parte l'area del Signore Ciantaro detto Luqa Tonna.

Finally, the area of Bir Miftuh church suffered from flooding, making it inaccessible to the Gudja parishioners. For this reason, Bishop Michele Balaguer accepted the parishioners of Gudja's plea to have a new parish church built on higher ground, with the result that the old church had its status reduced to that of a wayside chapel; consequently extensive parts were demolished, including the transept, side chapels and cupola, and its stone was used in the building of the new church.

All these problems were spelt out in the Relazione signed by the Vicar General Domenico Attard, and dated 27 April 1666. He was reporting on the progress of the building of the new parish church of Gudja, which was nearing its end. In fact, the work was terminated later on that same year. It was the custom at the time to repeat in official documents of this type the historical reasons for which the Bishop Balaguer, on the request of the parishioners of
Gudja, ordered the building of a new church in an area which was distant from the old parish church of Bir Miftuh:

Con disette alle supplichevoli istanza, che si gli faccova per parte di esso Popolo et ordinò che si fabbricasse una nova chiesa Parrocchia[e] nel mezzo del Cas[a]le. Essendo luoco più sicuro, et commodo per evitare i pericoli e disagi del altre volte successi, come fu questa quando i ladri di notte tempo andorno per rubbar in casa del ceppe[lla]mo che seranno decisi anni inciur[a], il qual ceppe[lla]mo per il timore seni mori pochi mesi dopo et un'altra volta i ladri di notte tempo spararono per il sacratano di aq[et]to chiesa per esser uscito al rimore de ladri, et havendolo colpito... e' s'in hoggi ch' scroppiato con il feto di cinque figli, tre de q[ual]li femine, con essere stata rubbata e’ spogliata la chiesa sud[ette]a dai ladri cinque volte d’anni 35 in qua inciur[a], et ultimamente segue quel sacrellgio furto del S [antijs][s]ijmo med[esim]o, essendo stata più volte rubbata la cascatella dell’elemosina, e tovagli dell’altrari, oltre i patimenti di esso popolo, et pericoli anche di esso atteso che in tutto il sud[ette]o tempo morseso da quattordici p[er]sone inciur[a] senza s[an]ti sacr[a]men[ti] per causa della lontanea di d[ette] chiesa parrocchia[e] e tre donne fecero l’aborto dentro la chiesa med[esim]a per la sud[ette]a lontanea, e mala strada che in e’, essendovi anche il vallone, che alle volte non si puo passare con i s[an]ti sacr[a]men[ti], come segue nei primi giorni d’Aprile prossim[e] passate, che per tre giorni e tre notti verso correre il aq[et]to vallone per la quantità delle pioggia, che son state.  

Moreover, in another account preserved in the first baptismal register of the parish church of Safi, there is a historical explanation why, at the end of the 16th century, this village requested to be separated from the parish of Kirkop. The reasons were again linked to distance aggravated by the problems of water inundation in winter. According to the writer of this account, entitled, Ad Fatiram Rei Memoriam (For Future Historical Reference), the main reasons why the villagers of Safi had asked to be constituted as a separate parish, distinct from Kirkop (the latter parish was founded in 1592), were that the parish church of Kirkop was 'still relatively distant' and that 'the existing streets (linking both areas) are very bad, with the result that during winter time, [the villagers of Safi] cannot go to Mass in the village of Kirkop as it gets flooded.' For this reason, the village of Safi was dissociated from Kirkop and established as a separate parish in 1598.

Similar documentary information exists for the area of Bormla, which also confirms that this area was vulnerable during heavy rainfalls. In fact, the geomorphology of Bormla, in particular St Helen's valley, continued to witness other tragic deaths after 1581. In at least one other instance, another death was recorded after heavy rains. On 4 December 1727, the parish priest of Bormla, Don Chrisostomo Crispo recorded, in Latin, the death of Francesco Micallef, aged 65, from what he described to be 'inventus in aquis torrentis S. Elena'. Perhaps, therefore, the construction of a large water reservoir in the St Helen area by the British forces in the early 19th century has to be seen in the light of the area's geographical formation and of such deaths. This was an area prone to flooding, and the human efforts made to diminish that proneness and the implied risks had become all too evident over the years. Certainly the reservoir's construction and location proved instrumental in lessening the number of accidental deaths.

Scholars in the study of the long-term effects of flash-flooding from torrential winter rain, such as J.M. Wagstaff, remark that despite the recurrence
of flooding, there is still 'not enough information available on such basic topics as stream flow'. Such a remark also holds true for the situation in Malta, since the manner in which the two bodies of 1581 were transported from Kirkop to the Grand Harbour can, after all, only be conjectured rather than charted with precision. Any attempt at reconstruction is subject to correction as the behaviour of stream water in semi-arid countries like Malta is, in the words of K. O. Pope and T. H. van Andel, 'complex and not yet understood well enough to permit predictive models'. In fact, the diverse impacts of flooding and the damage and disruption that it caused have never been seriously studied in Maltese historiography. In partial rectification, this paper will go on to briefly analyse the 1581 storm's impact from a social point of view, seeking to establish the repercussions that flash-flooding from the torrential autumn rain of 1581 had on two families from the small village of Hal Kirkop.

In 1581, Casale Kirkop (as it was referred to then) was still part of the parish of Bir Miftuh which at the time comprised seven villages: Tarxien, Imqabba, Kirkop, Gudja, Farrug, Luqa and Safi. Kirkop was one of the smallest villages in the parish. The number of its inhabitants in 1581 amounted to circa 320 individuals living in about 50 houses. Between 1565-1581, at Kirkop, the number of families with small children amounted to around 250. Such a natural calamity as the storm of 1581 must have hit adversely the inner core of this small village community. Applying the upstreaming theory for the description given by the Vicar-General Attard to the social situation in the rural areas of Malta, one can better understand what were the devastating general consequences of such a natural calamity, which came as an added burden to the fear of corsairing attacks, the perennial problem of theft, as well as the decrepit economic situation existing in rural areas.

In fact, Attard's report is full of covert social reflections which in a sense sustain the affirmations being made in this account, that the poor families living in the area of Bir Miftuh, including those of Kirkop, had to face a harsher reality from the losses provoked by the heavy rain. The situation became even more difficult for those families who suffered the abrupt loss of a male breadwinner. Despite the fact that Attard's dates relate to the middle of the 17th century, the social tensions present in his description can be applied with great historical certitude to the year 1581. The death of a breadwinner was a major catastrophe which led an already poverty stricken family into a devastating financial crisis. Attard expresses such a concern when he recounted the story of the shooting of the sexton. The shooting event was in itself not the most worrying affair. More upsetting was the fact that the poor sexton left behind three young daughters. The death of the father could throw a family into great misery. Female misery was also expressed by Attard when he refers to three 'abortion' cases which he insists had taken place inside the church. The translation of the Italian word 'aborto' by the English word 'abortion' is the least desirable as it can lead the reader into wrong historical conclusions. In the 17th century, the word 'aborto' was used in the strict Latin sense of 'abortus' which only meant a miscarriage, or a stillbirth considered to be provoked by a difficult or unassisted delivery. These cases show that there were women who had no home where to give birth and, either due to poverty or else to the fact that they lived far away from inhabited places, did not have enough time to call in a midwife. They could also have been cases of single mothers seeking to give birth in hiding.
The case of the stolen ciborium may also be an expression of social poverty. It occurred towards the end of Inquisitor Girolamo Casanate's term of office (1658-63) in Malta. From correspondence in the Archives of the Inquisition, we learn that the ciborium was found without the consecrated host. According to Inquisitor Casanate, there existed the possibility that the thieves of the ciborium may have escaped to Sicily. The fact that it was found without the hosts may be cited as another social reference in support of my assertion that this was a poverty-stricken area. One is tempted to think that this was an act provoked by the extreme famine that some individuals had to endure, with the result that they committed sacrilegious acts by breaking into isolated churches, forcing open the tabernacle door and stealing the consecrated host in an attempt to fill an empty stomach.

Natural catastrophes were nothing more than an additional blow to those who were already socially and financially hard-pressed. One can only imagine the extensive damages both to movable and immovable property that such a deluge would have caused even if the rather low number of casualties presupposes that, at the time, Kirkop already had a number of very soundly constructed houses. For a tight-knit community as Kirkop, the drowning of two villagers would have been very grievous, indication enough of the calamities that could so easily beset 16th-century existence.

In further studying the parish registers, one comes across more interesting data. Michele Farrugia was just going to celebrate his eighteenth birthday and was still unmarried when he died. He was born on 1 October 1563, the second of eight children. The names of his parents can also be established. His father was Domenico and his mother Isabella. They were married in the Parish of Bir Miftuh on 7 October 1560. Their marriage act gives further information about the origins of this family. The mother was a native of Kirkop, the daughter of Filippo Farrugia. The father's residence is unknown. Through further research, it was established that the name of her mother was Agata and that Isabella married at a tender age and had a sister called Bernardina, born on 23 May 1557. Michele's parents had decided to establish residence in the wife's native village of Kirkop, where between 1561 and 1580, they had eight children, including twin daughters: Tommaso, Michele, Bartolomea, Grazia, Agata and Giovanna, Marietta, and Dionisio. All traces of this family in the records of Bir Miftuh were lost after these floods. In fact, none of the names of Domenico Farrugia's children has been traced in the acts of Bir Miftuh in general or those of Hal Kirkop in particular.

Less genealogical information could be gathered on the family of Antonino Gatt. He was also single at the time of the tragedy, but older. The Gatt family did not have very strong roots in the village of Kirkop. His father Kola (Nicola) and mother Giovanna were the only members of the Gatt family bearing children between 1556 and 1593, that is, until Kirkop was established as an independent parish. The only registered birth in this family was Isabella, born on 8 May 1558. Thus, Michele was born some years before his sister. The family seems to have been composed of more daughters than sons. Studies of the Bir Miftuh marriage records reveal that Michele had two other sisters, Caterina and Marietta. Once married, both set up home in the village of Luqa. Isabella followed the model of her two other sisters and on marrying on 29 September 1577, established residence in the village of Safi. By 1581, Michele seems to have been the only child of the Gatt family still residing in Kirkop, together,
probably with his father who seems to have lived well up to the first two decades of the following century. On the other hand, his mother was already dead at the time of Marietta's marriage in 1576. Without doubt, the death of Michele was the second but not the last psychological blow to the Gatt family. A year or two before Michele's death and just a year and a half after her marriage to Matteo Said on 21 December 1576, Marietta died, leaving her already widower husband with a daughter named Agata. Two months after Michele's death, his other sister Caterina gave birth to her seventh baby, Inciona. This was to be her last child, as her husband Michele Bizule died less than two years later.

The above account brings to the fore the richness of the records of local parishes, which offer us the opportunity to study ordinary individuals, who, while not uninteresting in themselves, fail to attract the attention of Maltese historiographers owing to their comparative anonymity and to the fact that they may have been too poor and unable to impinge on the political and economic scene.

Thanks to the diligence of priests, the existence and life-cycle of these villagers was recorded in special registers in the form of births, marriages and deaths, thus giving us the opportunity, with the aid of modern sampling and statistical methods in demography and technology, to potentially reconstruct the history of each individual who formed part of Malta's past society, and, as was the case in this study, to place hitherto anonymous individuals within the bigger framework of Maltese social history.

Notes

5 P. Horoden and N. Purcell, The Corrupting Sea: A Study of Mediterranean History (Blackwell, 2002).
6 Ibid. p.321.
8 A word of thanks goes to Mr Mario Gatt, a well-informed connoisseur of the history of Gudja for having brought to my attention this historical detail about the difficulties that flooding created to the parishioners of Gudja.
12 PA Gudja, Baptismal, Marriage and Death Records, Collective vol.1, f.687.
13 AAM, [ecclesiæ] [parochialis] Box. 4, Case Number 2. Ecclesia Parrochiale Casali Gudia – Fabbrica, f.7r.
14 ‘E pure a fine distante e ci sono cattivissime strade, che a tempo d’insonno per le confusione dell’acque [i.e. villagers] non posso andare a messa in affitto casale’. PA, SàE, Liber Baptismalum, Vol. 1, f.32r.
15 PA Bormla, Mortuary Act. 4 December 1727; ‘having been overcome by torrential waters at St Helen’.
16 J. M. Wagstaff, 'Buried assumptions: some problems in the interpretation of the 'Younger


20 PA Gudja, *Collective*, vol. 1, Baptismal Act, 1 October 1563.

21 PA Gudja, *Collective*, vol. 1, Marriage Act, 7 October 1560.

22 Ibid., Baptismal Act, 23 May 1567.

23 Ibid., 27 July 1561.

24 Ibid., 1 August 1565.

25 Ibid., 12 January 1567.

26 Ibid., 11 February 1572.

27 Ibid., 24 September 1574.

28 Ibid., 2 October 1577.

29 Ibid., 16 October 1580.

30 Ibid., 8 May 1588.

31 Ibid., Marriage Act, 29 September 1577.

32 PA Gudja, *Collective*, vol. 1, Baptismal Act, 21 December 1576.