Sounds of the city: the soundscape of early modern European towns

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ABSTRACT: In European towns of the seventeenth, eighteenth and nineteenth centuries, the sounds people heard were very different from those of today. Yet the difference goes much deeper: whereas today we try to escape city noise, for the inhabitants of early modern towns sound served as a crucial source of information. It formed a semiotic system, conveying news, helping people to locate themselves in time and in space, and making them part of an ‘auditory community’. Sound helped to construct identity and to structure relationships. The evolution of this information system reflects changes in social and political organization and in attitudes towards time and urban space.

Cities have always been noisy places. Yet, on the whole, urban historians have paid little attention to urban sound, tending to assume that even if the sounds themselves were different, the role they played was similar. Thus horses’ hooves and rumbling carriages were the equivalent of today’s traffic noise; the bells of early modern cities were the alarm clocks, factory horns and recorded school ‘bells’ of today. In a certain sense this is true, yet just as people in the past interpreted the visual world differently, so too they experienced sound differently from the way we do. How can we understand the terror of thunder for people who did not know what caused it and for whom it was the loudest sound – along with cannon or large church bells – they ever heard. How can most of us, who rarely hear bells, recapture the ‘kind of vertigo’ produced by the sheer intensity of those church bells.1 Other sounds of the past, the rattle of swords and musketry or the cries of hawkers, have disappeared almost completely from our experience, and with them a whole range of day-to-day understandings.

Even where the sounds are similar, they may have completely different connotations. The clip-clop of horses’ hooves today may evoke flowing silk dresses and frock coats, carriages and a genteel way of life that has disappeared. Yet when horses were everywhere the sound conjured up no such nostalgic images. Even when we can actually capture sounds from the past – Hitler’s speeches or the first radio recordings – they do not have

the same effect on us that they had on their original audience. We may hear the same words, spoken in the same way, but we cannot hear the message as they heard it.

Only recently has the history of sound begun to attract serious attention, though Richard Murray Schafer’s *The Tuning of the World* raised many key questions in 1977. Peter Bailey has examined the changing idea of ‘noise’: sound that was either meaningless or undesirable. He suggested that the distinction between sound and noise changed in tandem with the emergence of modern mass society and in the nineteenth century with the growing bourgeois fear of the crowd. Alain Corbin’s history of bells in nineteenth-century rural France points to their role as signals, as markers of local identity, as symbols of authority and resistance, and hence as sites of social and political struggle. More recently, Jean-Pierre Gutton has sketched a history of sound in France since the Middle Ages, stressing the shift from oral to written culture, the development of ideas of privacy, and growing control of sound by the state and the church.²

The most detailed study of the early modern period is Bruce Smith’s remarkable *Acoustic World of Early Modern England*, which attempts to reconstruct the auditory experience of early modern English people, particularly in London. Smith argues for a history of listening, suggesting that what we consciously hear and the way we interpret it are historically and culturally determined. People in the past not only had different sounds around them, but consciously listened for sounds that we ignore and interpreted them in a different way. While their ears functioned physically as ours do, their experience of sound was different because their auditory and cultural environment and their psychology were different.

This article takes up many of the points made by these authors, with specific reference to the urban environment. It suggests that, to the inhabitants of European towns and cities in the seventeenth, eighteenth and nineteenth centuries, the auditory environment constituted a semiotic system. Sound was a vital element within an urban information system without radio, television or newspapers. Yet it was more than the equivalent of those media: it formed part of people’s way of navigating in time, space and in the social world of the city. Like other semiotic systems, urban sound functioned on different levels and not every hearer gleaned the same things. Particular sounds might have different associations for different people according to rank, gender or origin. The sound system worked in subtle ways to shape individual and collective identities, and to reinforce patterns of authority. Although sound also played a vital role in daily life in the countryside, this paper suggests that in cities

and towns its possibilities as a semiotic system were most thoroughly exploited, particularly in the period up to the mid-nineteenth century. In the later nineteenth century and thereafter, this auditory system gradually disappeared, to be replaced by different sources of information and different uses of sound. The chronology of urban soundscapes thus differs from conventional periodizations such as early modern and modern, pre-industrial and industrial.

The urban soundscape

I have already given one example of a sound once so familiar it normally went unnoticed: until a century ago, horses were everywhere in European towns. They provided the principal motive force for transport and industry, so hoof-beats, equine whinnies and snorts were ubiquitous. So were the rumblings of wooden and iron-rimmed wheels. More striking, for the first-time visitor to the larger European cities, were carriages travelling at what seemed like high speeds through narrow streets, their drivers calling warnings at the tops of their voices. Vienna was estimated to have 3,300 private vehicles and over 600 public cabs by the 1780s – London and Paris had many more – and ‘a man from the provinces who is in town for the first time, crawls along in front of the houses like a thief, and at every coachman’s cry fancies himself crushed under wheels and horses’ hooves’. These were vital warnings to pedestrians, since most towns had no footpaths.

Even large urban centres had farms inside their walls, and before the railway there was no way of transporting animals except through the streets, so it was common to hear not only horses but the bleating of sheep and lowing of cattle. The slaughterhouses were typically in the middle of towns, so the terror of pigs and calves scenting blood echoed through the nearby streets. Cats and dogs were legion – a visitor to Lisbon complained of being kept awake all night by dogs barking – and everywhere the crowing of roosters punctuated the morning, hens picked over the rubble in courtyards and streets, and pigs and goats roamed, despite rules against them. Pigeons were noisily widespread, but there were also birds that are now rare in the urban environment: rooks had disappeared from London by the early nineteenth century, and by 1900 jackdaws, nuthatches, warblers and nightingales too had gone.


6 Ibid., 181–2; [Dumouriez], Etat présent du royaume de Portugal (Hamburg, 1766), quoted in [J. Carrère], Tableau de Lisbonne en 1796; suivi de lettres écrites de Portugal sur l’Etat ancien et
Like animal sounds, human voices had greater significance in the urban soundscapes of the past. Bruce Smith points out that ‘in the absence of ambient sounds of more than 70 dB (barking dogs excepted), the sound of outdoor conversations would become a major factor in the sonic environment’.\(^7\) Depending on the weather, the width of the street, the number of reflective surfaces and the other sounds in the vicinity, people could hear others talking some distance away, especially from the upper storeys. Neighbours conversed across the street and quarrelled noisily. Public insult and charivaris were common strategies in early modern cities, a vital and rowdy part of local social interaction.\(^8\) Given that many people did not have glass in their windows, but used paper to keep out the winter cold, external sounds readily penetrated.

The carrying quality of the human voice in towns was exploited by the street sellers, who like preachers developed appropriate vocal techniques, using pitch, projection and repetition to achieve a high level of audibility. ‘The voices of most of the market-women seem half-hoarse, but very sharp withal, attacking one’s eardrums with piercing insistence’, reads a description of Vienna.\(^9\) A mid-nineteenth-century writer evoked ‘their dramatic inflections, their knowing tricks, their lively and varied expression, from the classical and vigorously punctuated declamation of the paper-seller, to the simultaneously melancholy and provocative melody of the coat-seller’.\(^10\) From Dublin to Moscow, each occupation in each city had calls that were distinctive not only in content but also in rhythm, rhyme and sometimes cadence: a few have survived in musical adaptations.\(^11\) Town criers were also an integral part of the city scene, calling laws, criminal convictions, or in some places funerals and objects lost or for sale.\(^12\) All these cries were ignored unless some key word, note or half-heard phrase suggested their relevance.
Live song and music were also more widespread in cities of the past. Ballad-singers retailed topical rhymes set to well-known tunes, fiddlers and pipers played in alehouses, while drums and fifes accompanied processions and marching soldiers. Song was part of the rhythm of work, from the street cries to the chants, at once repetitive and endlessly inventive, that marked time for men hauling on ropes and straining at windlasses, or for women beating their laundry. At Carnival time musical instruments were everywhere, from Irish pipes at one end of Europe to the Hungarian and Gypsy cymbal at the other. Every day of the year, religious music spilled from innumerable churches: the sounds of organs, serpents and even orchestras; the chanting of hymns and psalms. Trumpets and horns were widely used for both religious and secular purposes. Snatches of song tumbled from taverns; even freemasons sang behind closed doors. Whatever a person’s rank, music was in their ears and often on their lips, as much part of everyday sociability as conversation or card-playing.

Industrial noise was another characteristic of cities, though usually lower in volume before the age of steam. Rhythmic hammering and the whoofing of bellows reverberated from forges. Sawing, hammering, grinding and sanding marked the workshops of cabinetmakers, shoemakers and locksmiths, carriage-makers, tin- and copper-smiths, and many other trades, while building sites and shipyards added to the hubbub. The regular click-clack of looms marched out of open windows, and women on the banks of urban waterways beat their laundry with wooden batons.

Even the elements might produce different sounds from those of today. While the wind may still whistle through the streets as it did in John Gay’s London, it no longer makes ‘the swinging signs your ears offend with creaking noise’. Windmills – part of the landscape of most early modern towns – creaked as they turned and their canvas sails flapped. Then too, ‘the tiles rattle[d] with the smoaking shower’, the rain drumming on wooden shingles and cascading off roofs without spouting or downpipes, splashing noisily into the streets.

The loudest regular sound was that of bells. Seventeenth-century Beauvais had 135 large bells and several dozen smaller ones, while the small town of Lodi, in northern Italy, had no fewer than 128 bells at the beginning of the eighteenth century. St Ivan’s church in Moscow apparently had thirty-three, while across north-western Europe many churches had carillons of thirty, forty or more bells that played harmonies.

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at regular intervals. But church bells were not the only ones. Wherever city governments had survived the creation of larger territorial states – in Florence and Siena, across Flanders and northern France, in parts of Germany – city halls had their own bells. So did the Amsterdam stock exchange, and in Paris even the Samaritaine water pump on the Pont Neuf had a carillon that rang the hours and played tunes. Handbells were also commonly used: for official purposes, in religious processions, and by traders to attract custom. Inside the houses, better-off people (like Samuel Pepys) used a bell to summon the servants.

Floods of sound engulfed all the urban centres of Europe: ‘round noises, pointed noises . . . I could write a treatise on noises’, exclaimed the painter Elisabeth Vigée-Lebrun. Every place was different, every soundscape distinctive, and yet beneath the endless variations lay a common pattern of function and meaning.

**The meanings of urban sound**

Even when it formed part of the background, sound provided city-dwellers with a remarkable variety of information. Most non-human sounds, such as those of weather, had limited meanings – they were more important in rural areas, where they were more likely to affect the day’s activities and the prospects for crops and animals. In towns, by contrast, it was human sounds that had primary significance, and taken together they formed a complex semiotic system. Alongside human voices, bells were the most versatile. Even single bells could be rung in different ways, slowly or rapidly, mechanically or with a bell-rope or hammer. They could be ‘chimed’, the clapper just touching the bell, or ‘rung’, swinging almost full circle: in parts of southern Europe they were swung right round. They could be rung rhythmically and regularly, or in bursts; for an extended period or just a few moments. Where there were several bells, they were tuned differently: those of Saint André des Arts in Paris were tuned F, E, D and C. Thus each bell could be distinguished from the others and could be used for specific purposes. When played together they could be rung in the same sequence or in different patterns, sometimes with thousands of variations.

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18 Schama, *Rembrandt’s Eyes*, 313; Mercier, *Tableau*, vol. 6, 72.


21 S. Fabian, *Campanalogia: or the art of ringing* (London, 1677); Archives nationales, Paris, [hereafter AN] LL690, register of St André des Arts, fol. 74. For further examples, Gutton, *Bruits*, 29–30.
In large cities, where at certain times many bells were rung simultaneously, the different auditory possibilities of the bells were used extensively. Throughout Catholic Europe different bells or styles of ringing were used ‘to call the people to mass, to sermons, to vespers, to catechism, to benediction, and to tell them to pray when the Ave Maria [the Angelus] is rung in the morning, at noon, and in the evening; to mark the elevation of the Blessed Sacrament during the parish mass, or when it is carried to the sick or in procession’. Requiem and memorial masses can be added to this list. Both Protestant and Catholic churches held extra services on holy days, and rang for weddings and funerals. Both used the ‘passing bell’ to which John Donne referred (‘ask not for whom the bell tolls’), rung originally when someone was dying, to ward off evil, but later only after death. In some places it was muffled and everywhere it was tolled slowly, a call to prayer and remembrance. The passing bell might also convey information about the deceased: two pulls for a woman, three for a man was common in England and France. Sometimes smaller bells were used for women and children, larger ones for men or for people of high rank. Wedding bells (and wedding music too) were equally socially discriminatory: the very poor generally had none, while in the baroque age the rich enjoyed an auditory accompaniment to match the visual display of carriages, costumes and candles.

 Everywhere, bells marked the passing of time. The Angelus bell signalled the beginning and end of the day, though in Protestant cities lost its liturgical significance: in Geneva it was simply the morning bell, rung at 4 a.m. The start of the working day – often corresponding with the opening of the gates – was often signalled by a new round of ringing: Genevan artisans were forbidden to begin hammering until they heard the bell of St Pierre’s church. Further bells rang the hours, sometimes even the half- and quarter-hours, and workers and employers alike relied on them as independent measures of time. Most cities also had a curfew, warning that the town gates were about to shut and that it was time for the taverns to close and all good citizens to retire to their houses. In Geneva, again, it was marked by the chiming (as opposed to ringing) of the bells, and was followed by drum-rolls at the gates.

Not only the daily round, but the weekly and annual calendar was marked by the bells. In the 1750s the bell-ringer of one central Paris church was required to ring the full peal for each service on the twenty-two principal feast-days of the year and the ‘middle peal’ on twenty-two further
feast-days. On other Sundays and holy days the ‘ordinary’ peals were to be used.28 Some church bells, like those of the Carthusian monastery in Paris, played liturgical tunes appropriate to the season that could be widely heard in the early morning hours.29 Those who knew the code could immediately tell what day it was, what time of day, and what liturgical season.

Almost everywhere, the rapid, irregular ringing of a particular bell – generally a large one because of its greater carrying power – was an alarm signal, warning of fire or some other emergency. In Strasbourg, until the late nineteenth century, the ‘Holy Ghost Bell’ was only rung when two fires broke out simultaneously. Upon hearing the central city bell in Milan, all building workers and labourers were obliged by law to come running to fight the fire, listening for the parish bell to indicate where it was.30 News of more distant events was also conveyed by bells. A military victory or the birth, marriage, coronation or death of a member of the royal family let loose a torrent of ringing on all the cities of the kingdom. The variations were endless. In seventeenth-century Amsterdam the harbour bells signalled the return of ships from a long voyage. In Bath they signalled the arrival of visitors of rank. Serious punishments, particularly executions, were often announced by a particular bell, as in Milan, or by a special signal, such as the nine strokes of the great bell of Angers cathedral.31 Yet if bells were universal carriers of auditory information, they were by no means the only ones. In Amsterdam it was a drum that signalled the curfew, in London the nightwatchman’s call, while in other places cannon were used. In Paris the curfew was reinforced, until the early eighteenth century, by chains stretched across the streets, and their clanking punctuated the late evening and early morning.32 Throughout the day the hours were marked by different sounds, and anyone familiar with local rhythms needed only to listen. In some places weddings were held early, accompanied in London by the ‘vellum thunder’ of drums. As the working day began, ‘Shops open, coaches roll, carts shake the ground, And all the streets with passing cries resound’.33 In Vienna, ‘the great noise surrounding [the] markets lasts until 10 a.m., after which it subsides’. There, no carriages were to be heard before 9 a.m., while the streets were at their noisiest from 6–7 p.m.34 The street sellers often passed

28 Bibliothèque nationale, Paris, Joly de Fleury Collection [hereafter JF], Ms. 1586, fol. 200.
34 Pezzl, ‘Sketch’, 82–3.
at regular times on particular days. Certain hours were marked by bursts of chanting from the churches, in seventeenth-century Amsterdam by twice-daily blasts of organ music. In Valenciennes a bequest by a civic-minded burgher provided four *hautbois* to mark midday from the church tower. In garrison towns time marched to the beat of drums and the changing of the guard; in port cities to ships’ bells. The prostitutes who emerged in the Paris twilight whistled prospective clients, while in the mid-eighteenth century the population of Lisbon assembled on their doorsteps on winter nights and for an hour recited the rosary ‘in a kind of plain-chant’.

The silences were as informative as the sounds. The difference between night and day, in particular, was far more marked than in modern cities. In Vienna, ‘for anyone who has witnessed the daytime racket of the city . . . it is difficult to appreciate how extremely empty and silent the entire city is after 11 o’clock’. Early in the Paris morning Beaumarchais was ‘struck by the silence and all-pervading calm that enabled me to make out the sound of the river’. From morning bell to evening curfew – still in mid-nineteenth-century Paris the working day was officially from six until ten – the street cries and work noises continued unabated. But any noise at night was greatly amplified, so the ‘thunder’ of a noble carriage returning home woke the inhabitants. During the terrible winter of 1709, ‘the poor . . . disturb[ed] the quiet of the night with cries and sobs’, wrote one Parisian. The cries and bell of the nightwatchman and the ‘link-man’ (who lighted people to their doors) echoed eerily through London’s empty streets.

The weekly and annual cycles were similarly marked. Market days everywhere were distinctive, and so were seasonal changes. To quote John Gay again,

> Successive cries the seasons’ change declare,  
> And mark the monthly progress of the year.  
> Hark! how the streets with treble voices ring,  
> To sell the bounteous product of the Spring!  
> And, when June’s thunder cools the sultry skies,  
> E’en Sundays are profan’d by mackrel cries.  
> When rosemary, and bays the Poet’s crown,  
> Are bawl’d, in frequent cries, through all the town,  
> Then judge the festival of Christmas near.

The winter brought sleigh-bells to northern and eastern European cities. Carnival was unmistakable everywhere, with its raucous celebrations.

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crowds and music that failed to observe normal hours. Religious music, on the other hand, strictly obeyed the liturgical calendar. Easter and Christmas carols were unmistakable, and the silencing of church bells from Holy Thursday to Easter Saturday must have been eerie and discomforting for people accustomed to their almost incessant tolling: a silent, powerful reminder of Christ’s suffering and death. In Catholic areas the *Veni creator* marked Pentecost, and the Corpus Christi procession was accompanied by a processional hymn written by Thomas Aquinas. Heinrich Heine remembered ‘the old, well-known tones of the Passover songs’ he had heard in his youth in the opening years of the nineteenth century.39

All these sounds were important temporal markers, but they were equally significant in shaping people’s sense of urban space. This is easiest to imagine if we think of the way blind people navigated the streets: work noises marked particular shops, the clinking of beer mugs a tavern, the traffic noise a major intersection. The sighted too, whether aware of it or not, used sound to situate themselves. A barking dog, a rooster, the rattle of shutters, a fountain or the clanging of a bucket in a nearby well were spatial markers to those who knew the neighbourhood. And the children’s rhyme ‘The Bells of London’ reminds us that in each locality the church bells sounded differently. ‘The ways of ringing should be regulated in each church and known by all the faithful’, confirmed a French work on church bells published in 1757. In Lyon the main bell in each parish had a different note.40

The shared experience of local ‘soundmarks’ created what Barry Truax has called an ‘acoustic community’. In an urban environment it created overlapping acoustic communities in the same way that visual landmarks and local interaction helped to define overlapping neighbourhood communities. Those who belonged to a particular neighbourhood recognized its sounds and responded in ways that outsiders did not. Any interruption to the normal local sounds immediately put them on the alert, even if they were not consciously listening: a sudden silence, the clash of swords, or the tramp of marching feet brought everyone to their windows. So did angry voices. The acute sensitivity to outside noise was exploited by those using public insult to shame an adversary. At other times, the familiar soundscape helped create a sense of belonging: it was part of the ‘feel’ of a particular city, town or neighbourhood, a key component of people’s sense of place.41

Soundscapes, identities and power

Along with the diffuse sense of belonging created by familiarity with local noises, sound created bonds between those for whom they had meaning. Participation in religious services and processions marked by bells and singing helped shape a spiritual community that was also a local one. Music was part of the regular evening celebrations of the Milanese religious confraternities, the harmony of the notes deliberately designed to promote accord among the members and to foster spiritual and neighbourly relationships. Perhaps the ties created by the parish bells were not always as powerful in cities as in the countryside, because they competed with other kinds of relationships, yet the bells remained a protective presence that people could identify with. They were baptised and blessed, and right up to the late eighteenth century continued to be rung to defend the community from plague and storms.

But sounds helped to create multiple identities, some local and others much broader. The Milanese confraternities of the Cross were based in small territories to which they were fiercely attached, yet their participation in city-wide rituals and the Ambrosian rites they observed promoted a wider Milanese and Catholic identity. In the many towns where a single, central bell (or other sound) could still be heard everywhere – like Great Tom in Oxford – it provided a common reference-point and symbolically united the entire population. Even in late seventeenth-century Milan, with over 100,000 people, the ‘City Bell’ in the Piazza dei Mercanti, centre of municipal government, remained a symbol of unity. Despite the growth in area, population and in ambient sound in many cities, cathedral bells served the same function of maintaining a spiritual community, and so did sonorous city-wide processions – like the four-hour-long Misericordia procession in Turin on Good Friday. In Protestant areas the auditory equivalent was hymns and psalms that – particularly in the sixteenth and seventeenth centuries – helped to cement community and shape an identity opposed to Roman Catholicism. Protestants and Catholics could be clearly distinguished from each other by their response to certain sounds. The American John Quincy Adams, visiting a Paris bookshop in 1785, recalled that ‘While I was in the Shop, we heard a little bell in the Street; immediately every body in the shop, but myself, fell on their Knees and began to mutter prayers and to cross themselves. It was a priest, carrying le bon dieu, to a dying man.’ Thus particular sounds and responses to them helped to construct different acoustic communities associated not only

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43 JF 1586, fol. 200.
44 ASC, Materie 544, fols 18, 26; [J.J. Le François de la Lande], *Voyage d’un françois en Italie dans les années 1765 et 1766*, 8 vols (Venice and Paris, 1769), vol. 1, 159.
with particular areas but also with specific cultural, religious and ethnic groups. In places with an Islamic community, sensitivity to the regular calls to prayer distinguished Muslims from Christians. Almost everywhere, different languages and accents reinforced other cultural markers to create a variety of collective identities (Bohemian German as opposed to Hungarian; Irish as opposed to Cockney).46

Personal sounds also helped to determine how people saw themselves and how others treated them. Clogs marked the peasant; pattens (in early eighteenth-century London) a working woman; rustling silk the noblewoman. Among the urban elites, good manners increasingly outlawed belching, breaking wind and other bodily noises in the presence of others. Quiet demeanour came to be viewed as genteel, loudness as ill-bred. ‘Frequent and loud laughter’, wrote Lord Chesterfield, ‘is the characteristic of folly and ill manners: it is the manner in which the Mob express their silly joy at silly things; and they call it being merry.’ It was nevertheless permissible for gentlemen to speak and laugh more loudly than ladies.47 Nor was it solely the sounds people made that distinguished them, but those they heard and responded to. Servants, we are told, were able to distinguish street cries unintelligible to their employers.48 In all these ways, sound was an important part of the way community, gender and class identities were shaped and reshaped. It was particularly important in urban environments where the possibilities for confusion were greatest, and where ‘urbanity’ first emerged.

Sound was also central to the power structures of cities. Embedded within the urban soundscape was a hierarchy of authority, which determined who could make what sort of noise, and when. In every town the biggest bells (those whose sound carried furthest) were the most powerful and prestigious. They were used to mark the passing of important people and to remind the population of significant events. In particularly dire circumstances they were employed to beseech divine assistance: it was the largest bell that was used in Milan in January 1756, to ask God for a better year than the previous one.49 In early nineteenth-century France the use of the large bell in each parish was by law confined to high masses and major celebrations. And in each area, the most important church had the largest bell.50 Thus in Paris the large bell of the Abbey of Saint Germain des Prés rang a low A, the same note as the second-largest bell of Notre-Dame cathedral. In many places it was forbidden for other bells to be rung – on Easter Sunday, for example – before the cathedral bells. In Stockholm, the signal for prayers for the King

49 Borrani, ‘Diario milanese’, 1745, fol. 25.
50 Corbin, Village Bells, 38; Gutton, Bruits, 37–8.
and Queen was given by the bells of the Riddarholm church – that of the nobility – then taken up by all the others. The hierarchy was also gendered, at least as far as bells were concerned. The biggest bells, the most powerful, rang bass notes, leading one French author to refer to ‘the virile sound’ (son mâle) of the bell at Notre-Dame, even though all the cathedral’s bells had female names.

Because of the sacred and legitimizing power of bells, Counter-Reformation theologians argued that lay people should not normally be allowed to ring them and that women never should, except in all-female convents. They vigorously condemned the disorderly (but widespread) ringing of bells on All Souls Eve. Stockholm’s Lutheran church similarly forbade unauthorized people from ascending the bell towers. But the authorities laid claim to other sources of sound, too, notably drums, fifes, trumpets and cannon. Drums (defined in a 1729 dictionary as ‘a warlike instrument’) were used in official ceremonies and by the army while marching, for recruitment and to issue orders: the semiotics of drum-beats was familiar both to the substantial part of the European male population that had served in the army and to all those who lived in garrison towns and near barracks. Hence, in October 1789 when Parisian women used drums to mobilize the march to Versailles, they were guilty of a double usurpation of an instrument that was associated with state authority and with a male military. Cannon too symbolized masculinity, military authority and political sovereignty, all of which helps explain the insistence of the Paris sections, during the French Revolution, on maintaining control of the artillery belonging to the National Guard.

Trumpets were another official instrument, widely used for royalty and official announcements, in seventeenth- and eighteenth-century theatre to announce gods and heroes, to herald punishments, and in some places the curfew, while the monopolies accorded to town criers served to protect the status not only of their announcements but also of the drums and horns they used. Fireworks too were an important symbol of power, frequently concluding major national and municipal celebrations. Visually

52 Mercier, Tableau, vol. 5, 115.
53 Corbin, Cloches, 123; Carré, Recueil curieux, 74, 76, 84; SSA, Maria parish, J I1, fol. 22 (30 Jun. 1751).
56 Gutton, Bruits, 103.
spectacular, but also extremely loud, they broke the customary evening silence and fractured the darkness. The power to change the rhythms of urban life, to control sound (and briefly to turn night into day), was a formidable symbolic tool in the construction of the absolutist state.

The European monarchies also made use of other sounds. The Te Deum was a distinctive thanksgiving service used widely to celebrate royal events and military victories. In 1745 it was held throughout the Habsburg Monarchy to mark the coronation of the Empress’s consort. On the same occasion orders were given to all of Milan’s several hundred religious confraternities to sing in their oratories. Less than a month later a royal visit to that city mobilized ‘all the companies of the city watch, with banners displayed, with drums beating, and with several orchestral bands’.57

The ability to produce not only sound but also silence, as a mark of respect, was a privilege of authority. It reinforced an unequal relationship in which one party was free to speak, the other constrained to listen and obey. There was silence when the King spoke. Servants and social inferiors were supposed to remain still when their betters addressed them. The low volume imposed by female modesty was another form of submissive behaviour. Silence in courts of law indicated respect for the authority of justice, while schools and monasteries imposed silence as a disciplinary measure. On the way to mass, the rules of one Paris school insisted, the students ‘will try, through their silence, their composure, and their modesty to edify all those they meet’.58 There was no expectation that concert or theatre audiences be quiet, but the churches were slowly winning the battle to outlaw noise inside the church during the divine service. Changing attitudes to death and to the sacred were imposing silence in cemeteries, again as a sign of respect, in place of loud noises designed to banish evil.59

Whoever controlled sound commanded a vital medium of communication and power. The usurpation of church bells by secular rulers, to mark their dynastic celebrations and their passing, illustrates the importance of the bells both for disseminating information and as a political tool, conferring legitimacy. In 1729 all the Paris bells were rung continuously for three days and three nights to proclaim the birth of an heir to the French throne.60 Here again, the ability to deprive the inhabitants of sleep, to blanket out all other sounds, and to set their heads ringing, was a potent sign of royal power. It also symbolically unified the city in a way that few other sounds could. Not surprisingly, in the 1790s the French

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revolutionaries were quick to seize the bells to affirm the legitimacy of the new civic order.\textsuperscript{61}

The importance of sound in structuring identities, hierarchies and power relationships is demonstrated by the many disputes that it provoked. In 1753 the Archbishop of Paris became involved when the churchwardens of one parish refused to allow the bells to be used for the confraternity of the Sacred Heart, which he was promoting. This incident was part of a bitter, century-long struggle between orthodox Catholicism and the Jansenist reform movement. Alain Corbin has described many other conflicts over bells in France during the French Revolution, and throughout the nineteenth century when they were part of the struggle between church and state. There were also bitter feuds between neighbouring towns and parishes competing to possess the largest or most harmonious bells, or to ring them most loudly and drown out the others – thus extending, in an aural sense, the parish boundaries.\textsuperscript{62} The authorities responded by setting down rules and negotiating compromises. The hierarchy of religious authority that allowed each church to possess a particular number and size of bells seems to have been reinforced during the seventeenth century. The respective rights of bishops, chapters of canons, and others, to ring cathedral bells were carefully defined. Still in the late nineteenth century three of the major bells in Antwerp cathedral were carefully designated as belonging to the city, not the church.\textsuperscript{63}

The claims of church and state to control sound provided ample possibilities for political resistance. The people in Rouen who, in 1678, ‘danced with great noise, sang dissolute songs, had violins and violes played, and troubled the divine service . . . even though the great bell is always rung to alert the people’ knew exactly what they were doing.\textsuperscript{64} In 1688 the Catholic mayor of Dublin condemned Protestant officials at Christ Church for failing to ring the bells joyfully enough to celebrate the birth of the Prince of Wales. The French Revolution too provides many examples of church bells being rung without permission, in noisy affirmation of popular sovereignty. In February 1792 Parisian women rang the bells to summon a crowd to support price fixing on sugar. Their usurpation of drums in October 1789 has already been noted (they tried unsuccessfully to ring the bells then, too). More generally, charivaris or ‘rough music’ were cacophonies of popular mockery that in cities increasingly turned to political satire.\textsuperscript{65} Fireworks remained popular, despite bans on their

\textsuperscript{61} Corbin, \textit{Village Bells}, Part I.
\textsuperscript{62} JF 1568, fol. 185; Corbin, \textit{Village Bells}.
\textsuperscript{64} Muchembled, \textit{Culture populaire}, 263–4.
\textsuperscript{65} K. Milne (ed.), \textit{Christ Church Cathedral, Dublin: A History} (Dublin, 2000), 269 (I am grateful to D. Cuthbert for this); Tableau des témoins, et Recueil des faits les plus intéressans contenus dans les dépositions de la procédure instruite au Châtelet de Paris, sur les faits arrivés à Versailles, les 5 et 6 octobre 1789 (n.p., 1790), witness 28; E.P. Thompson, \textit{Customs in Common: Studies
Unauthorized use prompted both by the fire risk and because they were ‘disorderly’ and usurped the official monopoly on loud noises. In 1759 there were scuffles when Milanese soldiers prevented young people from letting off squibs on the feast-day of Our Lady of Sorrows.\textsuperscript{66} Dissent was also expressed through silence: Parisian diarists measured the popularity of successive monarchs by the volume of cheering when they visited the city.\textsuperscript{67}

In some of these examples, noise (or silence) was being used by groups of people not only to protest but to assert rights. Individuals used noise in the same way. Public insult was the most common form of this behaviour, intended to assemble a crowd and to humiliate its targets. Complaints by the victims always stressed damage to reputation, not just from the insults, which were often of a ritual kind, but from their public nature – and noise was central to publicity. Public insults and disputes were often elaborate displays that could go on for an hour or more, auditory performances for the benefit of a local audience.\textsuperscript{68}

Most of these uses of sound were not confined to cities and towns, yet there human noise was at its loudest, most intrusive and most richly textured. The soundscape was complex enough to constitute a ‘system’, with its own grammar and syntax, though it was never divorced from the other senses. Whether the ringing of the parish bells in Geneva indicated a divine service or the closing of the city gates depended both on how and when they were rung and on whether they were preceded by drums. Loud voices in the night silence meant something quite different from loud voices in the daytime. A handbell rung early in the morning advised Paris shopkeepers to sweep the pavement, whereas the same sound at another time of the day marked an announcement or, if accompanied by a momentary hush as passers-by dropped to their knees, the passage of the sacraments. Market days were distinguished not by a single sound, but by a conjunction of noises indicating unusual levels of commercial activity. Only by listening to the city sounds in the context of all the auditory signals (and other signs) could their full significance be grasped.

**The history of urban noise**

Many types of urban sound changed little from medieval times to the nineteenth century. Lorenzo de Medici wrote of church bells continuing to ring in one’s ears even after they had stopped, and evoked neighbours


\textsuperscript{68} Shoemaker, ‘Decline of public insult’; Garrioch, ‘Verbal insults’; Farr, ‘Crimine nel vicinato’. 
calling to each other across the street.\textsuperscript{69} Still, in the mid-nineteenth century, street cries and bells structured the daily calendar of many urban dwellers. The auditory system remained largely intact until the late 1800s, perhaps even until the arrival of the automobile, while in smaller centres it lasted still longer.\textsuperscript{70} Nevertheless, very considerable changes took place during the period I have been considering, reflecting key developments in urban society, politics and culture.

For a sixteenth-century Londoner transported to an early nineteenth-century city, the most striking difference in the soundscape would probably have been the traffic noise. The paving of streets made hoof-beats and wheels resonate more loudly, while the growth in the numbers of wheeled vehicles was astronomical. According to one author, in 1550 there were only three carriages in Paris, and most nobles mounted horses or mules. By the mid-eighteenth century – perhaps even earlier – there were some 20,000 carriages in the city, and after 1750 increasing numbers of cheaper vehicles that were available to larger numbers of people. The number of waggons and horses also grew with the expansion of commerce, and correspondingly the level of background noise, particularly in the narrow, reverberating streets of the old city centres.\textsuperscript{71} And as traffic noise grew, it potentially drowned out other sounds, particularly street conversation. It may have obliged street sellers to intensify their cries: ‘Their throats overcome the noise and din of the cross-roads...only those will succeed who cry their merchandise in a loud and shrill tone.’\textsuperscript{72}

The attentive listener, comparing the sixteenth century with the later period, might also have noted differences in the bells. In France and possibly other parts of Europe, their volume grew towards the end of the eighteenth century as earlier restrictions on their number and size ceased to be enforced and as techniques of casting improved. Thus the early celebrations of the French Revolution marked the loudest ringing of all time in that country: later in the Revolution, in France and other countries touched by the wars, thousands of bells were melted down and many were never replaced.\textsuperscript{73} But there were other long-term changes in their uses. The campaign by Counter-Reformation bishops to preserve the sacred function of church bells and to restrict bell-ringing to religious purposes resulted in limitations on lay access. They insisted that each parish appoint official

\textsuperscript{69} Lorenzo de’ Medici, Simposio, ed. M. Martelli (Florence, 1966), 133, 143–4. I am grateful to Bill Kent for this reference.
\textsuperscript{70} See August Strindberg’s evocation of Stockholm sounds in ‘A birds-eye view of Stockholm’, in The Red Room (1879), where church bells and evensong could still be heard alongside the trains and steamboats.
\textsuperscript{72} Mercier, Tableau, vol. 5, 66.
\textsuperscript{73} Corbin, Village Bells, 7–8.
bell-ringers, and by the end of the seventeenth century Protestant churches
too generally confined the bells to official purposes and to authorized
ringers or clubs.\textsuperscript{74} This gradually reduced certain community uses of bells,
to mark secular celebrations, to convey news about individuals (except the
most important people), or to assist the seriously ill and women in labour.
In the larger cities, the passing bell seems to have been totally abandoned
by the eighteenth century. In any case, as city populations grew such
practices became more difficult to sustain. If no one knew for whom the
bells were tolling, much of their value as information was lost. Increasingly,
they became markers of social distinction: already in seventeenth-century
Amsterdam the passing bell was a privilege of the rich, and everywhere the
use of bells for weddings, baptisms and funerals became restricted to the
better off. There were also pecuniary reasons for this, again a by-product
of the employment of professional bell-ringers who exacted a substantial
payment to ring for individuals.\textsuperscript{75}

Another development, reflecting a profound change in the nature
of urban society, was the gradual decline of auditory signals as a means of
regulating behaviour, earlier in large cities than in smaller ones. As Alain
Corbin points out, early modern European societies lived according to
communitarian norms, everyone observing broadly the same timetable,
which was marked largely by sound.\textsuperscript{76} Bells signalled religious services,
which all parishioners were supposed to attend. Town gates were opened
and closed at particular times, accompanied by auditory signals to warn
the population. Most cities had curfews, and nocturnal activity was
frowned on – given the widespread fear of darkness, and later of crime,
most people did not want to be out anyway. Work was not allowed to
begin before the morning signal and had to cease by a certain hour – in
any case, daylight was necessary for most occupations. On holy days only
official sounds were in theory permitted. The most common legislation on
noise in the early modern period – often the only noise legislation – was
to ban excessive noise during church services and on holy days. It was
probably reinforced during the seventeenth century.\textsuperscript{77}

Over the following two centuries, though, the enforcement of a common
timetable was abandoned. By the late eighteenth century, gates generally
remained open and curfews were abandoned. Many cities demolished
their walls, or spilled out beyond them. Urban populations were less

\textsuperscript{74} See, for example, the decree of the Paris Parlement of 21 Mar. 1665, in E. de La Poix de
Fréminville, \textit{Dictionnaire ou traité de la police générale des villes, bourgs, paroisses et seigneuries

\textsuperscript{75} \cite{carreere}, \textit{Tableau de Lisbonne}, 223; AN, LL863, parish council of St Nicolas des Champs,

\textsuperscript{76} Corbin, \textit{Village Bells}, 302–3.

to London commented that ‘our hostess would not even permit her foreign guests to play
to themselves on the viol de gamba or flute, so that she would run no risk of punishment’: Zacharias Conrad Von Uffenbach, \textit{London in 1710}, trans. \& ed. W.H. Quarrell and M. Mare
fearful of marauders, and the burgeoning demands of commerce and provisioning took precedence over old restrictions on movement. Except for limitations on work on religious holidays, official regulation of the daily and weekly round declined. A growing diversity in individual timetables was promoted by the advent of street lighting, the greater availability of domestic lighting, and the growing popularity of late-night recreations for the urban elites – in all these areas the later eighteenth century marks a turning point. The distinction between daytime noise and nocturnal quiet was further reduced by demand for night services: transport, street cleaning, nightsoil collection, clearing letter boxes and domestic service, not to mention the scavenging trades. The late eighteenth-century writer Restif de la Bretonne, in a critique of the large, cosmopolitan city that Paris had become, wrote of a utopia in which everyone returned home to eat at midday and slept undisturbed by carriages or waggons rumbling through the streets. The reality was very different, and by the mid-nineteenth century cities never slept.

Accompanying these changes was a shift away from religious uses of urban sound. European states usurped church bells for dynastic celebrations, military victories and national festivals. Across the eighteenth and nineteenth centuries the number of religious holidays was gradually reduced, sometimes by the state and sometimes by the churches themselves. In many cities parish boundaries were redrawn and the number of churches reduced, while overall church attendance fell, particularly in the nineteenth century. The church bells rang less often, there were fewer of them in any given area of a city, and they meant less to a significant proportion of the population. Town hall and factory bells and horns began to replace them as communal markers of time and as alarm signals. Simultaneously, the commercialization of leisure saw the development of shows and promenades and a host of other secular activities on Sundays and religious feast days (though London – probably the most commercial city in Europe – continued to observe the Sabbath longer than many others).

79 Quoted in F. Bassani, ‘La cité idéale chez L.S. Mercier et N.E. Rétif de la Bretonne’, in idem, Rétif de la Bretonne et la ville (Strasbourg, 1993), 51. The theme of the sleepless city was a favourite one of mid-nineteenth-century picturesque urban literature: see, both from 1858, Fournel, Ce qu’on voit, 324, 328–30, and G. Sala, Twice Round the Clock, or the Hours of the Day and Night in London (Leicester, 1971).
by religious services and festivals, more by secular ones, though the chronology was different in each place.

New attitudes to noise accompanied and sometimes hastened changes in urban sound. City authorities placed less emphasis on respect for holy days and more on protecting the sleep of residents. In Bern, for example, there were at least three seventeenth-century ordinances against noise on Sundays and holy days, two in the eighteenth century and one in the nineteenth. After 1763 the focus shifted to noise at night, and in the nineteenth century hospitals replaced churches as official zones of silence.\(^{82}\) Meanwhile, tolerance of external noise declined, particularly among the urban elites. The idea that noise was a nuisance only became widespread in the late eighteenth century, when urban utopias began to imagine a city in which there were no carriages or carts and no dogs barking at night.\(^{83}\) The Romantic poets forcefully expressed their distaste for urban noise. Byron’s Childe Harold could assert that ‘To me high mountains are a feeling, but the hum of human cities torture’.\(^{84}\) Urban elites began to move to the suburbs, escaping a whole host of city centre ‘nuisances’, now including noise. City-dwellers complained with increasing vigour about church bells and other noise early in the morning, noise abatement societies were founded, and doctors began to stress the health dangers of excessive noise. By the late nineteenth century it was perceived as a major problem.\(^{85}\)

Increasingly, too, there was a class difference in attitudes to noise. In the late eighteenth century and after, noisy celebrations – along with body noises and loud speech – were more and more viewed as vulgar by the elites, and this was one reason why traditional Carnival celebrations, the rowdy, mocking parades known as charivaris, rough music, or katzenmusik, and public insult, were increasingly condemned by ‘respectable’ people.\(^{86}\) Across the same period, the urban elites developed a distinct musical culture, that of classical music as opposed to popular song. In almost every royal capital, concerts, balls and opera became central to the life of the court and of the city elites. Private amateur concerts and musical societies were

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\(^{82}\) Schafer, *Tuning*, 190. The examples given by Gutton, *Bruits*, 84–6, support this chronology.


\(^{84}\) George Gordon, Lord Byron, *Childe Harold’s Pilgrimage* (1812–18), canto iii, stanza 72. See also, of course, William Blake, ‘London’, in *Songs of Experience* (1794).


also an important part of the social round. For women of the middle and upper classes, music became an indispensable accomplishment, central to family, courtship and other social rituals. Arguably, it became part of their sense of self, differentiating them both from their social inferiors and from their male peers. Rapid growth in sales of music and instruments after the mid-1700s reflected the spread of this elite musical culture, which was accompanied in the late nineteenth century by attacks on street music.

The key changes in urban sound between the sixteenth and the early nineteenth centuries, therefore, were a result of changing political and social practices rather than of new technologies or new sources of sound – though steam engines were beginning to appear by the end of the period. By then, however, the auditory information system that had operated in European towns and cities was losing its usefulness for a significant and growing proportion of the population. Across the early modern period, almost everyone had relied on sound for a host of everyday purposes. But with the expansion of trade, the development of nation-states, and – within individual cities – a shift in leisure and work patterns among the elites, significant sections of the population began to rely for their incomes, social interactions, opinions and sense of self on information that could less easily be conveyed through the urban soundscape. Instead they turned to other sources, some auditory and some visual, more often domestic than external: clocks and watches, newspapers, almanacs and directories, maps. None of these was new, but all became far more widespread in the eighteenth and nineteenth centuries. In new political and social contexts, too, street music and other ‘noise’ came under attack. Public insult and charivaris lost their impact or were forcibly suppressed, as new forms of social regulation – police forces and the rule of law – replaced communitarian ones. In a more secular society, church bells and other religious signals lost their significance for many people. Power relationships and identities were expressed in new ways, no longer through baroque display and sound but through different social practices, through subtleties of dress, accent and domestic consumption. Sound remained important – it was not replaced by the visual – but its uses and contexts changed dramatically.

All of these factors combined to reduce the significance of the urban soundscape as a semiotic system. It ceased to engage people’s attention and began, when intrusive, to attract their hostility. As Antoine Pluche pointed out in 1746, ‘sounds call us and busy us with the things they signify…But they start to tire and annoy us when they are no longer signs of anything’.

88 Weber, Music, 6; Schafer, Tuning, 66; Brown-May, ‘Blast from the past’.