# The Illustrator and the Global Wars to Come Albert Robida, La guerre infernale, and the Long History of Imagined Warfare

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Ne soyez point en peine de ce Heros inconnu qui se presente à vos yeux. Encore qu'il ne soit pas ny de ce Monde ny de ce Siecle, il n'est pas si farouche ny si barbare, qu'il ne soit capable de faire un beau choix, & qu'il n'ait jugé aussi juste de vostre merite, que l'auroient pû faire tous ceux qui ont l'honneur de vous mieux connoistre.

JACQUES GUTTIN [MICHEL DE PURE], Épigone, histoire du siècle futur (A Paris: Chez Pierre Lamy, 1659), aij-p.nn.

... I must acquiesce, and be content with the Honour and Misfortune, of being the first among Historians (if a mere Publisher of Memoirs may deserve that Name) who leaving the beaten Tracts of writing with Malice or Flattery, the accounts of past Actions and Times, have dar'd to enter by the help of an infallible Guide, into the dark Caverns of Futurity, and discover the Secrets of Ages yet to come.

SAMUEL MADDEN, *Memoirs of the Twentieth Century* (London: Printed for Messieurs Osborn and Longman, Davis, and Batley ..., 1733) vol. 1, 3.

The Tasmanians, in spite of their human likeness, were entirely swept out of existence in a war of extermination waged by European immigrants, in the space of fifty years. Are we such apostles of mercy as to complain if the Martians warred in the same spirit?

HERBERT G. WELLS, The War of the Worlds (London: Heinemann, 1898).

### Introductory remarks

Late modern and early contemporary imageries related to techno-driven globalization processes are to be found, in some of their most popular and graphic expressions, in visual and literary works of fiction. Made possible by the emergence of new ideas of a secularized historical time, early speculative fiction is an exceptional vantage point from which to observe the birth and development of popular themes and tropes related to those compressions of time and space, which increasingly characterized the world system between the late nineteenth and the early twentieth century.

In the European cultural space, and especially in mature publishing markets such as the French one, speculative fiction set in the future became an apt expression of new imageries related to techno-science, including new communication and transportation systems and the astonishing speed of their development. Narratives and illustrations interpreted the appearance of new forms of awareness of

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<sup>&</sup>lt;sup>1</sup> "SF and Globalization," DAVID HIGGINS and ROB LATHAM, eds, special issue, *Science Fiction Studies* 39, no. 3, 118 (November 2012).

globalization processes, becoming part of a communicative circuit, which was expanding its audience at a fast rate, thanks to the increasing presence of the popular press.

In this phase of techno-scientific acceleration and tumultuous changes in cultural habits, speculative fiction began to depict a major shift that had been occurring in the European mind-set during the late modern era: the emergence of a plastic future. New ideas of the future were a consequence of new, secularized temporalizations of history. The conception of historical time as home to linear processes of development was in turn deeply influenced by a close encounter with "others," by explorations, voyages and the availability of written, figurative and material sources regarding remote parts of the world, which documented Western forms of ethnocentric hierarchization and, at the same time, began the task of problematizing them.<sup>2</sup>

Fantastic narratives and illustrations can be read as part of a broader social history of ideas of space and time,<sup>3</sup> and work as litmus tests of the complex reconfigurations they underwent in the Western mind, as global interconnectedness brought new subjects and issues onto the stage.

The subgenre of imagined future wars developed in relation with the use of alternate history as a means for political propaganda, which could be found from the late seventeenth century onwards in non-fiction tracts and pamphlets, as in some of the examples discussed below. Near the end of the nineteenth century, this literary and visual narrative strand assumed clear-cut characteristics, and articulated concerns regarding instabilities and tensions in international relations, and fears related to the destructive use of those technological innovations that were following one another so rapidly and that were taking centre stage at the great international exhibitions and world fairs.

The discovery of a selection of Albert Robida's original sketches for Pierre Giffard's feuilleton *La guerre infernale* (1908),<sup>4</sup> offers an occasion to connect these

<sup>&</sup>lt;sup>2</sup> REINHART KOSELLECK, Futures Past: On the Semantics of Historical Time, trans. Keith Tribe (1979; New York: Columbia University Press, 2004).

<sup>&</sup>lt;sup>3</sup> PETER BURKE, "Foreword: The History of the Future, 1350-2000," in *The Uses of the Future in Early Modern Europe*, ed Andrea Brady, Butterworth Emily (New York and London: Routledge, 2010), ix-xx.

<sup>&</sup>lt;sup>4</sup> Presently at the Civico Museo di guerra per la pace "Diego de Henriquez" of the City of Trieste, of which seven are reproduced here (Figures 6-12). Diego de Henriquez, Italian ex-soldier and creator, between the 1940s and the early 1970s, of a notable private collection of armaments, military tools and technologies, documents and books pertinent to the theme of war throughout history, bought fifteen of Robida's original sketches in 1957, when he found them on a bookstand in Rome. On Henriquez (Trieste 1909-1974) see Antonella Furlan and Antonio Sema, Cronaca di una vita: Diego de Henriquez (Trieste: APT Trieste, 1993); Antonella Furlan, La civica collezione Diego de Henriquez di Trieste (Trieste: Rotary Club Trieste-Civici musei di storia ed arte, 2000). On Robida's sketches within the Henriquez collection: Giulia Iannuzzi, "The Cruel Imagination: Oriental Tortures from a Future Past in Albert Robida's Illustrations for La guerre infernale (1908)," in Lan, Justice and Codification in Qing China. European and Chinese Perspectives. Essays in History and Comparative Lan, Guido Abbattista, ed (Trieste: EuT, 2017), 193-211, esp. 194, note 3.

various strands and critically assess the role of wars to come in the development of an imagination related to the future, and in the construction of the consciousness of a global, human, earthly destiny.

Recent scholarship in speculative fiction studies and cultural history has produced a few excellent studies tackling speculative fiction as a laboratory for a global space-time between the late nineteenth and the early twentieth century,<sup>5</sup> and the emergence of science fiction as a genre in the age of colonialism and empires.<sup>6</sup> Existing contributions, also when dealing with the specific theme of imagined future wars,<sup>7</sup> tend to concentrate on the early-contemporary age, rightfully stressing the significant changes that in that phase affected the European techno-scientific, socio-political and economic system, and their influence on new forms of mass media communication, collective imagery and textual genres.

Histories of science fiction dealing with the development of the genre from ancient times through the ages tend, in turn, to be written from a perspective internal to the science fiction genre. While excellently outlining main authors and trends, general histories of science fiction necessarily give up more in-depth analysis of specific themes, and usually broader issues of cultural history remain outside their scope. Such works do not deal, or only marginally, with the connection between speculative imagery and the conceptualization of time, and they often keep their focus on literary expressions, while leaving aside other spheres and levels of public discourse and forms of representation.

The present essay, building on existing contributions, aims at fostering a better understanding of imagined future wars in the early contemporary age by locating them within a long history of imagined warfare, including late-seventeenth and eighteenth-century developments, and against the backdrop of the cultural history of time. Furthermore, for late modern and early-contemporary expressions, this study – drawing on Robida's case –, aims at enhancing the deep connections that run between literary, figurative and exhibitionary cultural artefacts in terms of representation strategies and circulation of ideas.

### Historicizing the Future

Contemporary historiography has highlighted the role played by a spatial dimension in the birth of a speculative imagination which, in modern-age Europe, exploited

<sup>&</sup>lt;sup>5</sup> DAVID HIGGINS and ROB LATHAM, "SF and Globalization," quoted above.

<sup>&</sup>lt;sup>6</sup> E.g. ISTVAN CSICSERY-RONAY JR., "Empire," in *The Routledge Companion to Science Fiction*, MARK BOULD, ANDREW M. BUTLER, ADAM ROBERTS, SHERRYL VINT, eds, (London and New York: Routledge, 2009), 362-372; JOHN RIEDER, *Colonialsm and the Emergence of Science Fiction* (Middletown CT: Wesleyan University Press, 2008). See also Paul K. Alkon's works cited below.

<sup>&</sup>lt;sup>7</sup> E.g. I.F. CLARKE, "Future-War Fiction: The First Main Phase, 1871-1900," in *Science Fiction Studies*, 24, no. 3 (November 1997): 387-412; I.F. CLARKE, "Before and after 'The Battle of Dorking," in *Science Fiction Studies* 24, no. 1 (1997): 33-46.

<sup>&</sup>lt;sup>8</sup> E.g. ADAM ROBERTS, *The History of Science Fiction*, 2<sup>nd</sup> ed. (London: Palgrave, 2016).

fantastic and philosophical motives, and was rich in theological and spiritual interests.<sup>9</sup> The Copernican revolution opened up cosmic space as a possible home to other planets and civilisations. From Francis Godwin's *The Man in the Moon* (1638) to Cyrano de Bergerac's *The Other World* (1657), up to Fontenelle's *Entretiens sur la pluralités des mondes* (1686), the seventeenth century reflected on the possibility of extra-terrestrial life and saw the flourishing of interplanetary voyages, explorations of the moon and more remote celestial bodies, close encounters with distant civilizations, including the possibility of being visited by extra-terrestrials beings on Earth (e.g. Charles Sorel's *L'Histoire comique de Francion*, 1623, progenitor of the imaginary visits of alien humans in Europe).<sup>10</sup>

Cultural historians and scholars of speculative fiction usually locate in a late-modern period the appearance of a temporal dimension exploited as a means of dislocation from the writer's reality, and thus as a source of cognitive estrangement. However, while some see in the consequences of the same Copernican revolution the crucial condition thanks to which the imagination first became able to work outside the temporal horizon of Biblical time, the others place the shift from a spatial-based to a temporal-based speculation as late as the eighteenth century, or take the year 1800 as a conventional watershed. In his comprehensive anthology of British future fiction, I. F. Clarke identifies a turning point during the nineteenth century, but traces from the seventeenth century onwards the first developments of a temporal imagination, in consequence of which "the geographies of utopian fiction evolved into the historiographies of a new literature."

The conceptualization of a future intimately linked to the present and shapeable by human action can in fact be traced back to the emergence of new ideas and

<sup>13</sup> PAUL K. ALKON, *Origins of Futuristic Fiction* (Athens: University of Georgia Press, 1987); Fátima Vieira, "The Concept of Utopia," in *The Cambridge Companion to Utopian Literature*, ed. GREGORY CLAEYS (Cambridge: Cambridge University Press, 2010), 3-27.

<sup>&</sup>lt;sup>9</sup> ROBERTS, *The History of Science Fiction*; ROBERTS, "The Copernican Revolution," in *The Routledge Companion to Science Fiction*, MARK BOULD, ANDREW M. BUTLER, ADAM ROBERTS, SHERRYL VINT, eds, (London and New York: Routledge, 2009), 3-12.

<sup>&</sup>lt;sup>10</sup> For a partial yet extensive bibliography of early extra-terrestrial voyage fictions: MARJORIE HOPE NICOLSON, *Voyages to the Moon*, 1948 (New York: Macmillan, 1960).

<sup>&</sup>lt;sup>11</sup> SUVIN, *Metamorphoses of Science Fiction*; see also PATRICK PARRINDER, "Introduction" and "Revisiting Suvin's Poetics of Science Fiction," in *Learning from Other Worlds: Estrangement, Cognition, and the Politics of Science Fiction and Utopia*, PARRINDER, ed., (Durham, NC: Duke University Press, 2000), 1-18, 36-50. Here I follow Parrinder in making use of the concept of cognitive estrangement as a kind of defamiliarization originating in the narrative dominance of a *novum* validated by a cognitive logic, adopting Suvin's category "in its ontological and epistemological aspects ... a mode of thinking rather than a body of texts," 6.

<sup>&</sup>lt;sup>12</sup> ROBERTS, "The Copernican Revolution," 9.

<sup>&</sup>lt;sup>14</sup> DARKO SUVIN, *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre* (New Haven, CT: Yale University Press, 1979), esp. ch. 6, "The Shift to Anticipation: Radical Rhapsody and Romantic Recoil," 115-144.

<sup>&</sup>lt;sup>15</sup> I.F. CLARKE, ed., British Future Fiction (2001) (London: Routledge, 2016), 8 vols., vol. 1, ix.

sensibilities towards historical time, which matured gradually during the modern age.<sup>16</sup> Anglophone and francophone literatures offer extrapolations of near-future scenarios as early as the beginning of the seventeenth century.

A play such as *A Larum for London* (published anonymously in 1602) implicitly suggests that a Spanish sack of London might replicate the horrors of 1576 Antwerp, <sup>17</sup> John Dryden's *Annus Mirabilis* (1667) imagines London reborn after the Great Fire, political prophetism nourishes works such as *Aulicus his Dream of King Sudden Comming to London* (anonymous, 1644) <sup>18</sup> and Jacques Guttin's *Épigone, Histoire du siècle futur* (1659). The future is home to a model society towards which the English Parliament is invited to work in *A Description of the Famous Kingdome of Macaria* (1642) attributed to Samuel Hartlib. <sup>19</sup> These narrations offer possible and counter-factual histories used to make a point about the politics of the day, whether through ominous predictions, practical indications, or – in the case of Guttin – as the backdrop to adventurous plots. <sup>20</sup> Squibs, satires, or exotic romances, these texts represent a step towards a secularized history<sup>21</sup> and conceptualizations of the future that their late-modern and early-contemporary descendants will come to embody, without yet constituting a genre, nor focusing their inventions and extrapolations on those techno-scientific wonders that would only later take centre-stage. <sup>22</sup>

<sup>&</sup>lt;sup>16</sup> KOSELLECK, Futures Past; KOSELLECK, The Practice of Conceptual History: Timing History, Spacing Concepts, trans. Todd Samuel Presner et al. (essay collection; Stanford: Stanford University Press, 2002), esp. "The Eighteenth Century as the Beginning of Modernity" (1987), 154-169; see also ZACHARY SAYRE SCHIFFMAN, The Birth of the Past (Baltimore: Johns Hopkins University Press, 2011).

<sup>&</sup>lt;sup>17</sup> Patricia A. Cahill argues that A Larum of London "In staging the 1576 sack (rather than siege) of Antwerp by Spanish soldiers, it implicitly warns that history will repeat itself in London", PATRICIA A. CAHILL, Unto the Breach: Martial Formations, Historical Trauma, and the Early Modern Stage (Oxford University Press, 2009), 166; see also Joseph F. Stephenson, "A Mirror for London: The Geopolitics of A Larum for London at the Globe in 1599," Parergon 30, no. 1 (2013): 179-120, doi: 10.1353/pgn.2013.0047.

<sup>18</sup> On Aulicus: I. F. CLARKE, "Future-War Fiction," see 387; ROBERTS, The History of Science Fiction, 75.
19 CHARLES WEBSTER, "The Authorship and Significance of Macaria," Past & Present 56 (August 1972):
34-48. On the possible contributions by others in Hartlib's cultural circle: ANTONELLA CAGNOLATI,
"L'utopia al potere: Il famoso regno di Macaria", in Annali dell'Università di Ferrara, Sezione III, Filosofia,
Discussion Papers, 57 (2000), retrieved from <a href="https://www.researchgate.net">https://www.researchgate.net</a>. For an alternative attribution
to GABRIEL PLATTES: OANA MATEI, "Gabriel Plattes, Hartlib Circle and the Interest for Husbandry in
the Seventeenth Century England", in Prolegomena 11, no. 2 (2012): 207-224. On Hartlib see also PHILIP
MAJOR, ed., Literatures of Exile in the English Revolution and Its Aftermath, 1640-1690 (London: Ashgate,
2010), esp. 27-28.

<sup>&</sup>lt;sup>20</sup> LISE LEIBACHER-OUVRARD, "Épigone, Histoire du siècle futur (1659): premieère uchronie et politique-fiction nostalgique", in French Forum 25, n° 1 (January 2000), 23-41.

<sup>&</sup>lt;sup>21</sup> By no means should the secularization process make us forget the critical role played by different uses of the future in the Christian imagination, between apocalypses and parusia. See for example Koselleck, Future Pasts, 11-17. In a recent book, Kristina Bross discusses examples such as Thomas Gage's A Brief Description of the Future History (1648) and Henry Jessey's Of the Conversion of Five Thousand and Nine Hundred East Indians (1650). KRISTINA BROSS, Future History: Global Fantasies in Seventeenth-Century American and British Writings (Oxford: Oxford University Press, 2017).

<sup>&</sup>lt;sup>22</sup> On science and technology in earlier utopias: FRANK E. MANUEL and FRITZIE P. MANUEL, *Utopian Thought in the Western World* (Cambridge, MA: Belknap Press of Harvard University Press, 1979), 175, see also 371 on Sevarambia; 8, 14 on the role of new science in seventeenth-century utopian thought; 19, 205 and ff. on the concept of pansophia.

As Bronisław Baczko has argued,<sup>23</sup> the topographical dislocation exploited in early-modern imaginary voyages may serve the purpose of constructing an ideal society untouched by the same historical processes experienced by the reader's, so that history as known by the writer and the reader constantly informs the invention as a negative presence, by its absence. Utopian societies may consequently be described as a result of different histories, and characterized by alternate calendars and time-computing methods, such as in *L'histoire des Sevarambes; peuples qui habitent une partie du troisième continent, communément appelé la Terre australe* by Denis Veiras (1677-1679).<sup>24</sup> Baczko discusses also what he calls utopia-proposals, such as Étienne-Gabriel Morelly's *Code de la Nature* (1755), in which the utopian project may serve the purpose of showing a different yet possible continuation of history, freeing society from its past to offer a new beginning.<sup>25</sup>

A debate on when and where the origin of futuristic fiction should be placed – namely, whether in English or French literary tradition, and in precisely which text – is more useful to contemporary interests competing within the field of study, than to our understanding of complex and multifaceted processes in the history of European culture. It might be more fruitful to consider the various phases as steps in a non-linear cultural process, in which each stage and actor can be historicized. Each work might be read in its particular context as well as – if that is the case – as a contributor to the development of later sensibilities regarding the future, thereby resisting the teleological temptation to judge authors and ideas *ex postero*, as preparing subsequent stages in a retro-constructed historical evolution of ideas.

Peter Burke has argued that a vast range of early modern cultural and material practices implied visions of a future with significant discontinuity from the present. Examples might be found in the attempts made by seventeenth-century demography to calculate the future size of the population (such as Gregory King in England and Marshal Vauban in France with regard to Canada), in "tactics" in warfare and politics, in facts and figures used by state authorities as the basis for future policies, in astrology and prophecy, in the calculations of profits and risks in commerce, money lending, usury, and the development of insurance. Early-modern utopias also postulate the idea of a human reason through which man is able to shape reality and his own future, and "even if they are not explicitly set in the future, utopias both express and encourage a sense of possible alternatives to the present." <sup>26</sup>

<sup>&</sup>lt;sup>23</sup> BRONISŁAW BACZKO, L'utopia. Immaginazione sociale e rappresentazioni utopiche nell'età dell'Illuminismo, trans. Margherita Botto and Dario Gibelli (1978; Turin: Einaudi, 1979), 157-251.

<sup>&</sup>lt;sup>24</sup> On Veiras's work see BACZKO, *L'utopia*, especially 159-163; for a comprehensive bibliography of editions, translations, and criticism see DENIS VEIRAS, *L'histoire des sevarambes*, édition critique par Aubrey Rosenberg (Paris: Champion, 2001).

<sup>&</sup>lt;sup>25</sup> On Morelly and eighteenth-century utopias as criticism to and projection into history see also: Frédérick Lemarchand, "L'idéologie moderniste et l'utopie," in Évologie & politique 3, no. 37 (2008): 23-31, esp. 26-28.

<sup>&</sup>lt;sup>26</sup> BURKE, "Foreword," qt. xiv.

With Enlightenment ideas of progress and secularisation of historical time, utopian constructions ceased to be static, to present a-temporal models, to be linked to an historical sphere, and it was during the eighteenth century that the emerging temporalization of history found its literary and programmatic reflection in diachronic utopias. Ideas of history as progress fostered new forms and functions of the utopian imagination, intimately connecting it to images of a different society situated in the future. Louis-Sébastien Mercier's *L'an 2440* (1771) might be considered a landmark in this process. Not only *L'an 2440* is a futuristic fiction in which the reader sees the protagonists travel in time (and not just to a certain future setting without explanatory narrative frames, as in some of its forerunners). It is also one of the first utopias set in a different time – a future 700 years off – but not in a different place – legendary islands or planets, or fantastic lands on Earth (Figure 1).

Despite important precedents that recent research has been able to bring to light, including seminal eighteenth-century works such as Samuel Madden's *Memoirs of the Twentieth Century* (published anonymously in 1733)<sup>31</sup> and the anonymous *The Reign of George VI. 1900-1925: A Forecast Written in the Year 1763* (1763),<sup>32</sup> Mercier's work still represents a critical point in the history of a temporal imagination. It compelled the authorities of the ancien régime to face up to the subversive potential of such a secularization of utopia, and contributed to the codification of a new genre, thanks to an unprecedented editorial success across Europe. According to Paul Alkon, "thanks in large part to Mercier's influential best-seller, the tale of the future became an established genre by 1850." Koselleck agrees that "[Mercier's] influence, extended by translations and imitations leading to the establishment of a new genre, can in no way be underestimated," while Baczko stresses Mercier's seminal role in the shift from spatial to temporal utopia. The seminal role in the shift from spatial to temporal utopia.

Other significant futures malleable by human action are to be found in revolutionary plays written (if not always put on stage) in 1789 France. This is the case

<sup>&</sup>lt;sup>27</sup> NICOLE POHL, "Utopianism after More: The Renaissance and Enlightenment," in *The Cambridge Companion to Utopian Literature*, ed. GREGORY CLAEYS (Cambridge: Cambridge University Press, 2010), 51-78, see 74.

<sup>&</sup>lt;sup>28</sup> BACZKO, L'utopia, especially 157.

<sup>&</sup>lt;sup>29</sup> VIEIRA, "The Concept of Utopia," esp. 4-9; Robert Darnton, *Libri proibiti. Pornografia, satira e utopia all'origine della rivoluzione francese*, trans. Vittorio Beonio Brocchieri (1995; Milan: Mondadori, 1997), 120-140, esp. 124.

<sup>&</sup>lt;sup>30</sup> ALKON, Origins of Futuristic Fiction 4, 19, 23.

<sup>&</sup>lt;sup>31</sup> PAUL ALKON, "Samuel Madden's 'Memoirs of the Twentieth Century," *Science Fiction Studies* 12, no. 2 (1985), 184-201.

<sup>&</sup>lt;sup>32</sup> CLARKE, British Future Fiction, I, 2; Roberts, The History of Science Fiction, 112.

<sup>&</sup>lt;sup>33</sup> PAUL ALKON, *Science Fiction before 1900: Imagination Discovers Technology* (New York and London: Routledge, 2002), 21, 60-61. See also DARNTON, *Libri proibiti*, 120.

<sup>&</sup>lt;sup>34</sup> REINHART KOSELLECK, "The Temporalization of Utopia," in *The Practice of Conceptual History: Timing History, Spacing Concepts*, trans. Todd Samuel Presner et al. (Stanford: Stanford University Press, 2002), 84-99, qt. 85.

<sup>&</sup>lt;sup>35</sup> BACZKO, L'utopia, 42, 170-172.

of Rétif de la Bretonne's *L'an 2000, ou la Régénération* (1789), which takes a look at the revolution already *ex postero*, from a commemoration that takes place in the year 2000, when the stabilization of revolutionary laws and traditions has created a social utopia. Individual rights and interests have finally been bent in favour of the collective good, and there is even room for an enlightened Louis XXIII. Thanks to the extremely long life of two of the characters, the memory of 1789 is still only two generations away in the past. Sylvain Maréchal's *Le jugement dernier des rois, prophétie en un acte, en prose* had its stage premiere on October 17<sup>th</sup>, 1793, the day after Marie Antoniette's execution. Set in the future, the first act opens with an old man keeping note of the days on a homemade calendar. Banished to a remote island, he is measuring out the duration of his exile, imposed by an unjust tyrant. He is soon liberated by a group of sans-culottes from all over Europe, where the French revolution has been followed by many others. Kings, queens and the Pope will be deported to the very same isle, only to be cast down into the depths of the earth when the local volcano erupts. The old calendar is burnt.<sup>36</sup>

These scenarios work as propaganda machines and still bear clear signs of utopian constructions, in which a movement towards the future is flattened on the present of the revolution, thus undermining any possible teleology. Nonetheless, they attempt to metabolize the social changes brought about by the revolutionary years through the manipulation of time, including the construction of a point of view from posterity.<sup>37</sup>

Condorcet's L'esquisse d'un tableau historique des progrès de l'esprit humain (1795) is considered by Baczko the arrival point in the assimilation process between utopia and history as progress.<sup>38</sup> Not only L'esquisse locates the perfected society it describes in a future historical time, but it presents its vision as a scientific forecast, based on the observation of the history of human societies in different past and present eras. The past, the present, and the future are connected by a global discourse about the progress of mankind, of which different phases and people are specific instances. The scientific method, allowing prediction on the base of universal and constant laws applied to human faculties,<sup>39</sup> provides utopia with a new conceptual foundation. In turn, as Alain Pons argues, the historical unity is guaranteed precisely by the tenth epoch: only utopia allows for a definite interpretation of the precedent steps in terms of a unidirectional, secular progress (e.g. excluding cyclical, regressive, or decadent paths, and religious or theological arguments).<sup>40</sup>

<sup>&</sup>lt;sup>36</sup> On calendar reformation in revolutionary France see BACZKO, L'utopia, 223-251; Matthew Shaw, *Time and the French Revolution: The Republican Calendar, 1789-Year XIV* (Woodbridge: Royal Historical Society-The Boydell Press, 2011).

<sup>&</sup>lt;sup>37</sup> SUSAN MCCREADY, "Performing Time in the Revolutionary Theater," *Dalhousie French Studies* 55 (Summer 2001): 26-30. See also I. F. CLARKE, "Before and after," 34.

<sup>&</sup>lt;sup>38</sup> BACZKO, L'utopia, 202.

<sup>&</sup>lt;sup>39</sup> DAVID WILLIAMS, Condorcet and Modernity (Cambridge: Cambridge University Press, 2004), 96 and ff.

<sup>&</sup>lt;sup>40</sup> ALAIN PONS, "Sur la Dixième époque: Utopie et histoire chez Condorcet," in Mélanges de l'Ecole française

It is not by chance that Frank and Fritzie Manuel consider *L'esquisse*, along with Mercier's *L'An 2440*, herald of a switch to euchronia.<sup>41</sup> As David Williams, along with other commentators, has noted,<sup>42</sup> Condorcet's idea of progress as a civilization process foresaw the development and assimilation of non-European peoples and cultures to European values. It might be argued that new knowledge and reflections on non-European cultures and the efforts towards their comparative systematization in a consistent frame provided, during the eighteenth century, the premises of new geographies of human diversity,<sup>43</sup> as well as of their disposition on a scale of historical development.

To summarize, it was during the seventeenth and eighteenth centuries that the future started to be explored as a dimension of possibilities, and gradually entered the realm of a secular imagination. Expectations and fears on the socio-political scene and in military affairs saw the start of a mapping process involving these new imaginative territories. Ideas of a future shapeable by human actions gradually become part of narrative inventions, during a time in cultural history already described by Reinhart Koselleck as crucial for the conceptualization of time at large. The emergence of the Enlightenment's ideas of history underwent a new acceleration imposed by the French Revolution in changes related to how the connection between present and future is constructed, and matured into new ideas about a secular and human dimension of the manipulation of the course of history. "The more a particular time is experienced as a new temporality, as *modernity*, the more that demands made of the future increase."

de Rome. Italie et Méditerranée 108, no. 2 (1996), 601-608, doi: 10.3406/mefr.1996.4457.

<sup>&</sup>lt;sup>41</sup> FRANK and FRITZIE MANUEL, Utopian Thought, 20, 415, 492 and ff.

<sup>&</sup>lt;sup>42</sup> DAVID WILLIAMS, Condorcet and Modernity, 157-158.

<sup>&</sup>lt;sup>43</sup> ROLANDO MINUTI, Una geografia politica della diversità. Studi su Montesquieu (Naples: Liguori, 2015).

<sup>&</sup>lt;sup>44</sup> KOSELLECK, Futures Past, see pp. 4, 3. On the time dimension in utopias set in the future see also PATRICK PARRINDER, Utopian Literature and Science: From the Scientific Revolution to Brave New World and Beyond (London: Palgrave, 2015), 4.



Fig. 1. Louis-Sébastien Mercier, *L'an deux mille quatre cent quarante* (1774; nouvelle edition, Paris, an X [1801-1802]) vol. I, 12. Looking at the public notices posted on a wall, the protagonist realizes he has slept for 672 years.

# Exhibiting temporal hierarchizations

The history and coming of age of the future-war genre might be better understood against the backdrop of changes in the social history of ideas of the future, as much as in the cultural circulation of literary and visual works of fiction.

According to Darko Suvin, "the instauration of capitalist production as the dominant and finally all-pervasive way of life engendered a fundamental reorientation of human practice and imagination: a wished-for or feared future becomes the new space of the cognitive (and increasingly of the everyday) imagination."<sup>45</sup> The expansion of the Western powers brought about techno-driven globalization processes at an increased speed, 46 bearing remarkable consequences in the development of a globalized consciousness, and of ideas and imageries deeply rooted in new knowledge concerning remote areas of the globe and their inhabitants. The origins of this process can in fact be traced back to the multiple availability of sources deriving from geographical explorations, to the momentum thus gained by comparative and universal history during the late-modern age, and to the growing influence of Enlightenment ideas of progress and conjectural histories, organizing civilizations according to subsequent stages of development.<sup>47</sup> Notions regarding examples of radical "otherness" from remote parts of the globe conceptualized as remains of the common human past and instances of humanity in its infancy were decisive in fostering ideas of historical time as a dimension of progressive development. Ideas of degeneration and stagnation applied to other societies implied the use of the European civilization as a standard against which other might be evaluated, and also brought about reflections on historical time as a frame of causal relations between phenomena and human actions. In ideas of a linear and irreversible historical time lies the - insufficient but necessary – precondition for the hierarchizations of societies and humans that will characterize a mature imperialistic phase.<sup>48</sup>

During the nineteenth century, these conceptualizations informed important expressions of popular culture, such as the Great Expositions, in which a temporal dimension was touched upon by central symbolic and discursive structures.<sup>49</sup> Through

<sup>&</sup>lt;sup>45</sup> SUVIN, Metamorphoses of Science Fiction, 115-116.

<sup>&</sup>lt;sup>46</sup> DANIEL R. HEADRICK, *Power over People: Technology, Environments, and Western Imperialism, 1400 to the Present* (Princeton and Oxford: Princeton University Press, 2012).

<sup>&</sup>lt;sup>47</sup> GUIDO ABBATTISTA, "The Historical Thought of the French Philosophes," in *The Oxford History of Historical Writing*, JOSÉ RABASA, MASAYUKI SATO, EDOARDO TORTAROLO, DANIEL WOOLF, eds, vol. 3, 1400-1800 (Oxford: Oxford University Press, 2012), 406-427; GEORG G. IGGERS and Q. EDWARD WANG, with contributions from SUPRIYA MUKHERJEE, A Global History of Modern Historiography (London and New York: Routledge, 2013), 19-32; DANIEL WOOLF, A Global History of History (Cambridge: Cambridge University Press, 2011), esp. 280-343.

<sup>&</sup>lt;sup>48</sup> On temporal hierarchization from a cultural history perspective: CHRIS LORENZ and BERBER BEVERNAGE, eds, *Breaking Up Time: Negotiating the Borders Between Present, Past and Future* (Göttingen: Vandenhoeck & Ruprecht, 2013).

<sup>&</sup>lt;sup>49</sup> GUIDO ABBATTISTA and GIULIA IANNUZZI, "World Expositions as Time Machines: Two Views of the Visual Construction of Time between Anthropology and Futurama," in *World History Connected* 13,

the recreation of ancient Greek and Roman monuments, medieval quarters and villages, and the living ethno-expositions of alien humans presented as embodying primitive or early stages of civilization,<sup>50</sup> international exhibitions effectively put on stage a temporal dimension, which culminated in sections devoted to the scientific and technological wonders of Western modernity and progress. This temporal hierarchisation provided the ideological frame in which an increasing thematization of the future found a place, and this became central near the end of the century, with the 1889's Eiffel Tower, Alva Edison's pavilion of electric light, and the Hall of Machines. Conflating ideas of history and images of the globe<sup>51</sup> in limited urban areas – or even in single attractions, such as George Wyld's Great Globe in Leicester Square during the London Great Exhibition of 1851 – these expositions allowed visitors to complete a tour of the world on foot in a few hours. As one of the first and most effective "laboratories for a global space-time," these exhibits made a decisive contribution to the elaboration of a science-fictional mind-set.<sup>53</sup>

The technological sublime, which became typical of early speculative-fiction literature and illustration, has the same cultural backdrop as Expos and Fairs, and is partly indebted to the exhibitionary strategies of those early pavilions. Expos embodied a growing interest in science and technology, helped to visualise their future effects on human society and the global environment, and put forward a use of technology not strictly utilitarian, but rather aimed at fostering a *sense of wonder* in its spectators. As early as 1905 on Coney Island, with the dark ride A Trip to the Moon designed by Frederick Thompson, visitors could physically travel through scenic illusions, which staged a whole series of early science fiction tropes, from 20,000 Leagues Under the Sea (patented in 1903) to the North Pole, to a War of Worlds. The latter – which despite the similar title was not inspired by H. G. Wells' novel of 1897 – enacted an attack on New York by (small-scale) European navies. This attraction was heir to the naumachias that, since the Roman world and throughout modern Europe, had constituted a form of entertainment and public spectacle, 55 while

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no. 3 (2016), doi: 10.5281/zenodo.2652723.

<sup>&</sup>lt;sup>50</sup> GUIDO ABBATTISTA, "Concepts and Categories in the History of World Expositions: Introductory Remarks", in GUIDO ABBATTISTA, ed., Moving Bodies, Displaying Nations: National Cultures, Race and Gender in World Expositions Nineteenth to Twenty-First Century (Trieste: EUT, 2014), 7-20; and GUIDO ABBATTISTA, Umanità in mostra: Esposizioni etniche e invenzioni esotiche in Italia (1880–1940) (Trieste: EUT, 2014), esp. 32-36

<sup>&</sup>lt;sup>51</sup> ALEXANDER C. T. GEPPERT, "True Copies: Time and Space Travels at British Imperial Exhibitions, 1880-1930," in *The Making of Modern Tourism: The Cultural History of the British Experience, 1600-2000*, HARTMUT BERGHOFF, BARBARA KORTE, CHRISTOPHER HARVIE, RALPH SCHNEIDER, eds, (Basingstoke and New York: Palgrave Macmillan, 2002), 223-248.

<sup>&</sup>lt;sup>52</sup> ROGER LUCKHURST, "Laboratories for Global Space-Time: Science-Fictionality and the World's Fairs, 1851-1939", in *Science Fiction Studies* 39, no. 118 (2012): 385-400.

<sup>53</sup> BROOKS LANDON, "SF Tourism," in BOULD et al., The Routledge Companion to Science Fiction, 32-41.

<sup>&</sup>lt;sup>54</sup> WOODY REGISTER, *The Kid of Coney Island: Fred Thompson and the Rise of American Amusements* (Oxford and New York: Oxford University Press, 2001): electronic edition, par. "The Crying Need for Novelty." <sup>55</sup> MARTHA POLLAK, *Cities at War in Early Modern Europe* (Cambridge and New York: Cambridge University Press, 2001), 284-286; IGNACIO RAMOS GAY, "Naumachias, the Ancient World and Liquid

also tapping into an "early-twentieth century frenzy for disaster spectacles, science fiction and 'you are there' adventure journeys." <sup>56</sup>

It will come as no surprise that three years before publishing *Vingt mille lieues sous les mers: Tour du monde sous-marin*, Jules Verne visited the 1867 Paris Universal Exposition. Here Joseph-Martin Cabirol's diving suit (an innovative version of Augustus Siebe's creation) received a prize, and a model of the 1863 submarine *Le plongeur* was on display, which became sources of inspiration along with the other latest literary and current events.<sup>57</sup> By the turn of the century, the diorama and panorama attractions in the "Tour du Monde" pavilion at Paris 1900 had a distinctive Vernian twist, being a miniature version of his namesake 1872 novel,<sup>58</sup> designed by Alexandre Marcel, with the collaboration of Louis Doumoulin, already known as the "Jules Verne du pinceau."<sup>59</sup>

The "Tour du Monde" with its Arabian, Japanese, Chinese and Indian sections among others, compressed geographical distances and summarized global space through the juxtaposition of remote cultures. A 1900 report on the Expo by the French Ministère du commerce, de l'industrie, des postes et des télégraphes highlighted that the attraction was home to various dioramas and an "exotic theatre" with 300 seats, devoted to the "most curious countries" serviced by the French Compagnie des messageries maritimes. Here living "natives" demonstrated for the public everyday activities or traditional dances, <sup>60</sup> albums illustrated with lavish photos documented the *mises en scènes* and became tokens of the Fair for visitors to collect, and to enjoy (again) the aesthetic marvels and visits of important personalities. <sup>61</sup>

Another section of Paris 1900, the "Vieux Paris" designed by journalist, illustrator and novelist Albert Robida, condensed historical time from the Middle Ages

Theatrical Bodies on the Early 19<sup>th</sup> Century English Stage," in *Miranda* 11 (2015): 1-15, doi: 10.4000/miranda.6745.

<sup>&</sup>lt;sup>56</sup> JOHN S. BERMAN, *Coney Island* (New York: Barnes & Noble, 2003), 34; see also WILLIAM J. PHALEN, *Coney Island: 150 Years of Rides, Fires, Floods, the Rich, the Poor and Finally Robert Moses* (Jefferson, NC: McFarland, 2016), 114.

<sup>&</sup>lt;sup>57</sup> WILLIAM BUTCHER, "Introduction" and "Appendix: Sources of Ideas on Submarine Navigation", in JULES VERNE, *Twenty Thousand Leagues under the Seas*, trans. William Butcher (1870; Oxford: Oxford University Press, 1998), ix-xxxi, 382-384, see xiv and 383; Smithsonian Libraries, *Fantastic Worlds: Science and Fiction 1780-1910*, "Sea Changes," website of the exhibition, July 1, 2015 - February 26, 2017, <a href="https://library.si.edu/exhibition/fantastic-worlds/sea-change">https://library.si.edu/exhibition/fantastic-worlds/sea-change</a>.

<sup>&</sup>lt;sup>58</sup> ROGER BENJAMIN, Orientalist Aesthetics: Art, Colonialism, and French North Africa, 1880-1930 (Berkley-Los Angeles-London: University of California Press, 2003), 114.

<sup>&</sup>lt;sup>59</sup> JULIEN BÉAL, "Le Japon dans la collection photographique du peintre Louis-Jules Dumoulin (1860-1924)", in *Hal – Archives ouvertes* 2017, hal-01517490v1: see 3 and note 9.

<sup>&</sup>lt;sup>60</sup> ALFRED PICARD (Ministère du commerce, de l'industrie, des postes et des télégraphes), Exposition universelle internationale de 1900 à Paris. Rapport général administratif et technique (Paris: Imprimerie nationale, 1902-1903), 8 vols., vol. 7, 226; accessed via Bibliothèque numérique en histoire des sciences et des techniques, <a href="http://cnum.cnam.fr">http://cnum.cnam.fr</a>.

<sup>&</sup>lt;sup>61</sup> Le Panorama. Exposition universelle 1900, sous la direction de René Baschet, avec les photographies de Neurdein frères et Maurice Baschet Publisher (Paris: Ludovic Baschet éd., 1900).

to the Eighteenth century into one attraction. 62 The official report mentioned above described Robida's attraction and documented it with numerous photos: "Le Vieux Paris se divisait en trois groupes principaux: quartier du moyen âge, s'étendant de la porte Saint-Michel (face au pont de l'Alma) à l'église Saint-Julien-des-Ménétriers; quartier des Halles au XVIIIème siècle; groupe formé par le Châtelet et le pont au Change (XVIIème siècle), la rue de la Foire Saint-Laurent (XVIIIème siècle) et le Palais (Renaissance)." The report highlighted the many leisures and attractions that animated the area, which included "a small battalion of figurants in costumes": "Des établissements de spectacle, des restaurants, des cafés, de nombreuses boutiques pour la vente d'objets-souvenirs étaient installés dans le Vieux Paris et contribuaient à son animation. Un petit bataillon de figurants en costumes anciens peuplait la concession." Among the dioramas described in the report, the exoticism of a Kremlin with special snow effects, was to be found alongside the techno-wonder of New York's elevated railway.

Verne was among the authors featured in the Gazette du Vieux Paris: rédigée par une société d'écrivains des Annales politiques et littéraires, which Albert Robida designed to accompany the Vieux Paris section of the expo. The Gazette devoted fourteen fourpage monographic issues to different moments in French history, and constituted a visual pendant of the recreation of pasts that was staged by architecture in the Vieux Paris. From a first "Gallo-Roman" issue featuring Verne on "The Origin of Paris," through a second "Merovingian" issue a third "Carolingian," and so on, the Gazette was meant both as a guide to and souvenir from the exhibition. While contents celebrated French national spirit and its role in the birth of modern democracy, every issue embodied the era to which it was devoted, being printed on a different kind of paper, imitating fonts and illustration style of the period represented (Figure 2).<sup>65</sup>

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<sup>62</sup> Exposition Universelle de 1900. Le Vieux Paris: guide historique, pittoresque et anecdotique (Paris: Ménard et Chaufour, 1900), booklet, Bibliothèque nationale de France, Gallica, ark:/12148/bpt6k201257n; see here, xviii-xiv for Robida as "maistre de l'oeuvre" and a list of his main collaborators. See also ELIZABETH EMERY and LAURA MOROWITZ, Consuming the Past: The Medieval Revival in fin-de-siècle France (Burlington: Ashgate, 2003), esp. ch. 7 "Feasts, fools and festivals: the popular Middle Ages," 171-208; Robida, créateur du Vieux Paris à l'Exposition Universelle de 1900, thematic issue of Le Téléphonoscope. Bulletin des amis d'Albert Robida 9 (2002), esp. Jean-Claude Viche, "Bibliographie sommaire sur «le Vieux Paris» de Robida," 2.

<sup>63 &</sup>quot;The Vieux Paris is divided into three main parts: the Middle Age district, extending from Porte Saint-Michel (opposite to the Alma Bridge) to the Saint-Julien-des-Méneétriers church; the district of the XVIII century halls; a quarter formed by the Châtelet and the Change bridge (XVII century), the Foire Saint-Laurent street (XVIII century) and the Palace (Renaissance)." PICARD, Exposition universelle, vol. 7, 240, see also 244, where the report specifies that the area occupied by the Vieux Paris was 1.918-square meters large, and that to this had to be added a 250-meters long and 3.900-square meters large area of corbelled constructions along the Seine.

<sup>&</sup>lt;sup>64</sup> "Entertainments, restaurants, cafes, and numerous souvenirs shops were installed in the Vieux Paris and contributed to its animation. A small battalion of extras in costumes from ancient eras populated the concession", PICARD, *Exposition universelle*, vol. 7, 244.

<sup>65</sup> On the Gazette: CHRISTINE A. ROTH, "The Narrative Promise: Redesigning History in La Gazette du Vieux Paris", in CEA Critic 78, no. 1 (March 2016), 116-128; PATRICE CARRÉ, "Paris perdu, Paris mis en pages... En feuilletant la Gazette du Vieux Paris", in Le Téléphonoscope. Bulletin des amis d'Albert Robida 9

In other works by Robida, the Great Expos is a central source of inspiration: Le vingtième siècle (1883), set in 1952, gives account of future society constructed around the inventions on show at the Paris 1881 Exposition Internationale d'Électricité. "Jadis chez aujourd'hui" (published in Le petit français illustré between 10 May and 14 June 1890) presents a time-travel fantasy featuring a scientist who resuscitates Molière and other literary figures and accompanies them to visit the Paris 1889 Exposition Universelle. The same ideas underpinning the design of the 1900 Vieux Paris are at work in such projections of a future Paris. Scenarios depicted in La guerre au vingtième siècle (1887)<sup>67</sup> and, as we shall see more in detail below, La guerre infernale (1908) are logically extrapolated from the present as a consequence of historical processes, of an irreversible time flow and causal mechanisms. Ideas of progress informed these fictions, as well as, on occasion, the terrible awareness of the potential consequences of using new technologies to develop weapons and military hardware.

(2002), 19-21.

<sup>66</sup> Cf. JOHN CLUTE et al., "Robida, Albert", in *The Encyclopedia of Science Fiction*, JOHN CLUTE, PETER NICHOLLS, DAVID LANGFORD, eds, last modified January 4, 2019, accessed December 10, 2019, <a href="http://www.sf-encyclopedia.com/entry/robida albert">http://www.sf-encyclopedia.com/entry/robida albert</a>; DOMINIQUE LACAZE, "Albert Robida, Explorer of the Twentieth Century", part I, "Technical Innovation" and part II, "The Invention of a Society," *Futuribles* 366 (2010), 61-70, and 367 (2010), 65-76.

<sup>&</sup>lt;sup>67</sup> ALBERT ROBIDA, *La guerre au vingtième siècle* (Paris: Georges Decaux, 1887), this is a short, lavishingly illustrated novel in a stand-alone 51-pages volume; under the same title - "La guerre au vingtième siècle" - Robida published also a short story in *La Caricature*, 27 October 1883, 337-343.

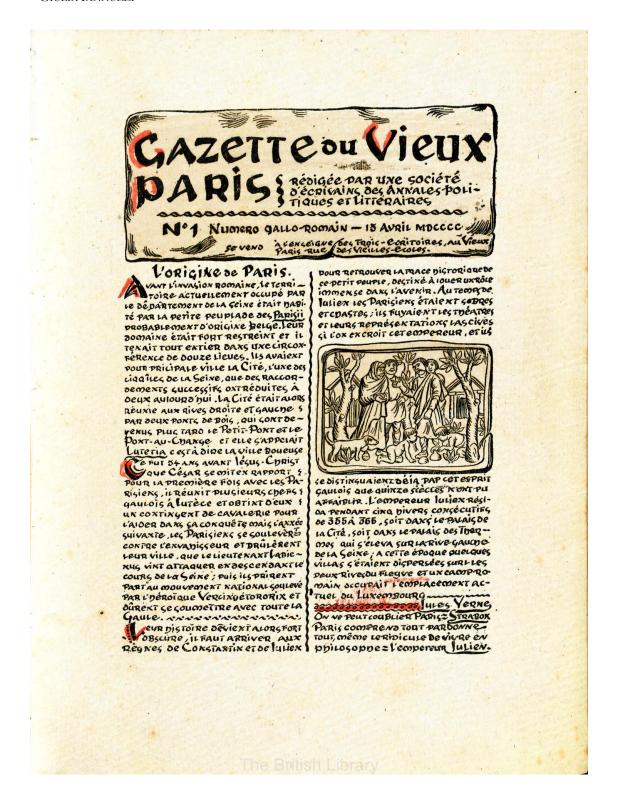


Fig. 2. Gazette du Vieux Paris. Rédigée par une société d'écrivains des Annales Politiques et Litteraires, n. 1 – Numero Gallo-Romain, 15 Avril 1900, cover. Copy at the British Library.

# Techno-apocalypses

By the beginning of the Twentieth century, the imagery related to future wars already had precedents, having been a topic touched upon in future-set narratives across different textual genres since the Seventeenth century. Early examples had used ominous depictions of future invasions and scenarios of armed conflict to argue in favour of specific political options in texts whose primary aim was to influence the political debates of the day. This was the case of the above-mentioned *Aulicus his Dream of the King's Sudden Comming to London*, a 6-pages pamphlet written by Francis Cheynel in 1644 to encourage his readers to act upon the terrifying image of Charles I gaining the upper hand against Cromwell and his Parliamentary forces.<sup>68</sup> In early future fictions such as *The Reign of George VI*, military triumphs (e.g. of England over France) were part of the success of a Bolingbrokeian monarch in the year 1900.<sup>69</sup>

Between the French Revolution and the Napoleonic years, a handful of plays, tracts and pamphlets envisaged a French invasion of Great Britain. "At the height of the Napoleonic wars between Britain and France, the propaganda machine on both sides presented various scenarios of the potential outcome," such as in *La descente en Angleterre* (1797) by Jean-Corisandre Mittié, in the anonymous "The Invasion of England" (1803), and "The Armed Briton" (1806). These narratives projected future scenarios in order to "give a realistic edge to straightforward propaganda," as did a wealth of satirical engravings and caricatures, such as the series *Promis'd Horrors of the French Invasion*, -or- Forcible Reasons for Negotiating a Regicide Peace (1796) and Consequences of a Successful French Invasion (1802-1803) by James Gillray. In fact, drawings and posters were the most popular media used to disseminate worries and fears about French armies invading England, after the Channel was crossed by hot air balloon in 1785 (Figure 3).

During the first years of the nineteenth century, however, future-war literary fictions were few in number, while war technologies were of course object of fantastic representations also unrelated to future settings, a notable example being Baron Munchausen's adventures on battle fields and on cannonballs becoming means of transport across Earthly territories and even to the moon.<sup>72</sup> Future settings were also exploited by prophetic novels imagining remote futures for humanity or one subject

<sup>&</sup>lt;sup>68</sup> CLARKE, "Future-War Fiction: The First Main Phase," 387.

<sup>&</sup>lt;sup>69</sup> C[HARLES] OMAN, "The Editor's Preface," in [Anonym], The Reign of George VI. 1900-1925: A Forecast Written in the year 1763, Republished, with Preface and Notes by C. Oman (1763; [London]: Rivingstons, 1899), vii-xxvi, see viii; GUIDO ABBATTISTA, "Il Re patriota nel discorso politico-ideologico inglese del Settecento," in LORD BOLINGBROKE, L'idea di un re patriota, traduzione, introduzione e commento di Guido Abbattista (Rome: Donzelli, 1995), xxi-lxxxviii.

MIKE ASHLEY, "The Fear of Invasion," *British Library*, Discovering Literature: Romantics & Victorians, 15 May 2014, https://www.bl.uk/romantics-and-victorians/articles/the-fear-of-invasion.
71 CLARKE, "Before and after," 35.

<sup>&</sup>lt;sup>72</sup> [RUDOLF ERICH RASPE], Gulliver revived, or The vice of lying properly exposed. ... Also an account of a voyage into the moon and Dog-Star; with many extraordinary particulars relative to the cooking animal in those planets, which are there called the human species (London: Printed for C. and G. Kearsley, 1793).

as the sole survivor of a catastrophe indebted to Romantic inspiration (e.g. Restif de la Bretonne's Les Posthumes in 1802, Jean-Baptiste Cousin de Grainville's Le Dernier homme in 1805, Félix Bodin. Le Roman de l'avenir in 1834). 73 While important milestones were reached in later decades by Louis Geoffroy's alternative history Napoleon et la conquête du monde 1812-1832: Histoire de la Monarchie universelle (1836),74 and by the American Civil War imagined by two American authors, Nathaniel B. Tucker (The Partisan Leader, 1836) and Edmund Ruffin (Anticipations of the Future, 1860), future-war narratives did not become a codified sub-genre until the 1870s. 75 By then, the presence of intertextual references to similar texts, a shared encyclopaedia of recurring motives and topoi, and textual devices implying a recognition of existing readers' expectations had gradually led to the sub-genre taking shape, helped by the emergence of a mass market for magazines and books, a rich breeding ground for popular publishing formulas. Particular attention has been paid by recent scholarship to the seminal role of George T. Chesney's The Battle of Dorking (1871), given the innovative nature of a setting located in a very near future, and the public debate that followed its publication in England, originating sequels, editions, and translations over a number of European countries and the US. Designed to encourage reform and modernisation in the British army, Chesney's book was written after the Franco-Prussian War, and envisaged a scenario in which Germany had taken France's place as the invader able to cross the English Channel.<sup>76</sup> According to Mike Ashley, "Chesney's alarmist story had catapulted the genre of future-war fiction into the public arena."77

The ensuing decades saw waves of imagined conflicts-to-come especially notable in England and Germany, in the short-story form as well as in serialized long narratives and volume-length novels. Depicted conflicts were consumed between European powers, as well as on a global scale (such as Robida's La guerre au vingtième siècle, and Giffard and Robida's La guerre infernale). Invasions from the east were relevant to the codification of the Yellow Peril theme (e.g. M. P. Shiel's *The Yellow Danger*, 1898), and threats from mad scientists and terrorist organizations were also imagined (e.g. George Griffith's The Angel of the Revolution, 1893). In H. G. Wells's The War of the Worlds (1898), the novelty of having extraterrestrials as invaders made explicit the relationship between ideas of progress and the recourse to the future as an imaginative device for

<sup>&</sup>lt;sup>73</sup> MARC ANGENOT, "Science Fiction in France before Verne," in Science Fiction Studies 5, no. 14 (1978),

<sup>&</sup>lt;sup>74</sup> Published anonymously until 1841; PIERRE VERSINS, *Encyclopédie de l'utopie, des voyages extraordinaires &* de la science-fiction (Lausanne: L'âge d'homme, 1972), ad vocem.

<sup>&</sup>lt;sup>75</sup> DARKO SUVIN, "Victorian Science Fiction, 1871-85: The Rise of the Alternative History Sub-Genre," in Science-Fiction Studies 10, no. 2 (1983), 148-169; see also BRIAN M. STABLEFORD, "Future War", in SFE: Science Fiction Encyclopedia, JOHN CLUTE, DAVID LANGFORD, PETER NICHOLLS, GRAHAM SLEIGHT, eds, 2005, last version 2018, http://www.sf-encyclopedia.com/entry/future\_war.

<sup>&</sup>lt;sup>76</sup> First published in *Blackwood's Magazine*, and reprinted as a stand-alone pamphlet. A contemporary edition is in CLARKE, British Future Fiction, vol. 6, 1-44; on its reception: CLARKE, "Before and after," 42-44; on its innovative role see also: ALKON, Science fiction before 1900, 40.

<sup>77</sup> ASHLEY, "The Fear of Invasion."

conducting hypothetical experiments, informed by conceptualizations of historical time as characterized by a unidirectional flow. As John Rieder has argued, "... Wells asks his English readers to compare the Martian invasion of Earth with the Europeans' genocidal invasion of the Tasmanians, thus demanding that the colonizers imagine themselves as the colonized, or the about-to-be-colonized. ... the analogy rests on the logic prevalent in contemporary anthropology that the indigenous, primitive other's present is the colonizer's own past ... The confrontation of humans and Martians is thus a kind of anachronism, an incongruous co-habitation of the same moment by people and artifacts from different times."<sup>78</sup>

In the years immediately preceding World War I, future wars became part of a proto-science fiction repertoire, in works written, published and read as entertainment. Notable cases include William LeQueux's bestseller *The Invasion of 1910* (1906), and Saki [Hector H. Munro]'s *When William Came: A Story of London Under the Hohenzollerns* (1913), apt examples of the coeval Germanophobia caused in England by the perception of an increasing Teutonic menace. Imagined conflicts became a fairly well-established subgenre, in which technology supplied a spectacular element, while being a focal point for anxieties related to the increasing speed of technological progress and world connections, as well as of international relations characterized by instability and/or by the emergence of non-Western actors such as Japan and China, with their economic and demographic power.

To understand and critically assess the wave(s) of future-war narratives that characterized European illustrated periodicals and book markets before 1914, we need to look at the historical circumstances that provided fertile ground for this production. While writers and artists might have been aware of current events and political circumstances that contributed to the subsequent First World War outburst, we may resist the temptation to make any simplistic teleological connections between works of fiction written at the turn of the nineteenth and beginning of the twentieth century and the terrible events that then ensued. In fact, authors and illustrators were presented with rich sources of inspiration in the recent past and contemporary history of Europe, with societies that, in the space of just a few years, had been changed forever by an astonishing mass of new inventions. The year 1869 saw the opening of the Suez Canal - connecting Europe to South and East Asia - and also of the first railroad to connect the East and West coasts of the United States, ushering in a phase in the history of technology characterized by rapid acceleration in change and innovation. Between 1873 and 1906, from the typewriter to the phonograph, the telephone, and radio broadcasting, from the steam engine to the automobile, from dirigibles to the

<sup>&</sup>lt;sup>78</sup> RIEDER, Colonialsm, 5.

<sup>&</sup>lt;sup>79</sup> STEPHEN KERN, *The Culture of Time and Space, 1880-1918* (Cambridge, MA: Harvard University Press, 1983), 90.

<sup>&</sup>lt;sup>80</sup> CECIL D. EBY, The Road to Armageddon: The Martial Spirit in English Popular Literature, 1870-1914 (Durham, NC: Duke University Press, 1988), 33 and ff., 80 and ff.

airplane, an impressive series of milestone-inventions was made possible, to follow Daniel R. Headrick argument, by intensified and stable connections between scientific research and technology. This impressive amount of technological novelties accompanied broad changes in agricultural production, hygiene practices and medical science, urbanization process and literacy rates.<sup>81</sup>

A global dimension was experienced in daily life not only by an elite section of the population. New mechanized means of transport and of communication determined an increased dominion over space, while from 1884 onwards, the adoption of a common system in time computing based on the Greenwich meridian affirmed the present and a global simultaneity as a widely shared frame of personal experience. According to Stephen Kern, technology as a source of power over the environment also suggested new ways to control the future.<sup>82</sup>

Innovations such as railroads and the telegraph brought about profound changes in warfare, allowing armies and supply columns to be constantly on the move, and the chain of command to operate over unprecedented distances. Modern marvels also posed specific issues, from the necessary system of poles and wires that rendered the telegraph useless in mobile campaigns, to the limited manoeuvrability of mass armies over a territory despite new means of transport. Technological innovation as applied to warfare dramatically increased the destructive power of weapons: machine guns, magazine-fed rifles, quick-firing and heavy artillery improved the range, accuracy, and firepower of infantries. The extension of the so-called "deadly zone," "the area in front of the defender's positions covered by the concentrated fire of his weapons," increased from 150 meters in the Napoleonic era to 300-400 meters during the Franco-Prussian War (1870-1871, with casualties among the attackers reaching percentages between 25 and 50), and then tripling to 800-1,500 meters by the mid-1890s.

Long-range rifle fire was decisive in defeats of numerically superior forces such as the British in the opening battles of the Second Boer War (1899-1902), in which knowledge of the territory and strategic choices and tactics nonetheless continued to be crucial, as the Russo-Japanese War (1904-1905) would also confirm.

Important developments in naval warfare, such as the accuracy of self-propelled torpedoes, steel battleships, and underwater mines, occurred regularly from the Russo-

<sup>82</sup> KERN, The Culture, esp. 90 and ff.; see also Vanessa Ogle, The Global Transformation of Time: 1870-1950 (Cambridge, MA: Harvard University Press, 2015); Jürgen Osterhammel, The Transformation of the World: A Global History of the Nineteenth Century, trans. Patrick Camiller (2009; Princeton and Oxford: Princeton University Press, 2014), esp. 69 and ff.

<sup>&</sup>lt;sup>81</sup> DANIEL R. HEADRICK, *Technology: A World History* (New York: Oxford University Press, 2009), 111 and ff; JÜRGEN OSTERHAMMEL and NIELS P. PETERSSON, *Geschichte der Globalisierung: Dimensionen, Prozesse, Epochen* (München: Verlag C. H. Beck, 2003, Eng. transl. *Globalization: A Short History*, Princeton: Princeton University Press, 2005), ch. V.

<sup>&</sup>lt;sup>83</sup> ANTULIO J. ECHEVARRIA II, *Imagining Future War: The West's Technological Revolution and Visions of Wars to Come, 1880-1914* (Westport, CT and London: Praeger Security International, 2007), qt. 28. I am indebted to Echevarrias's work for the technical notes on warfare in this paragraph.

Turkish War (1877-1878) onwards. Following British investments in steam-powered battleships equipped with small-calibre guns and in new classes of armoured mine-sweepers, by the mid-1890s many European powers were investing in innovations in naval gunfire, vessel manoeuvrability, self-propelled submarines, and wireless communications. The Russo-Japanese War would be a reminder to all "that large-scale naval battles were still possible."<sup>84</sup>

As for aerial warfare, the development of lighter-than-air balloons – used for reconnaissance – led to better manoeuvrability, with France at the forefront in aviation technology from the late 1870s onwards, followed by Germany. After Zeppelin's flight across Lake Constance in 1900 in an aluminium airship filled with hydrogen and the Wright brothers' flight in 1903, investments in aircraft research and production by Western powers such as Germany and the US increased significantly. Aerial assaults such as those carried out during the Italian invasion of Libya (1911-1912) and the Balkan Wars (1912-1913) established a new role for aerial warfare not only in the gathering of intelligence but also in combat, to attack and destroy buildings, artillery, and troops on the ground.

In Europe, Russia and the US, in fact, its potential military applications were one of the main attractions of air-mindedness – that "popular fascination with airships" that gave rise to a host of "glider clubs and rocket societies, air-shows and air races." Attacks from the sky were soon to be found in works by key-figures in the history of speculative imagination such as Jules Verne (*The Master of the World*, 1904) and H. G. Wells (*The War in the Air*, 1908; *The World Set Free*, 1914). Air-ground battles and airborne weapons quickly became a staple in future-war narratives throughout the twentieth century.

As John Rieder has argued, "the arms race is one of any number of sites where ideas about *progress* link the various threads of colonial discourse to one another and to science fiction." This technological competition opened up a critical power gap between those cultures and territories which owned certain technologies and those which did not. In doing so, it widened the gap between the industrialized hearts of colonial empires and their peripheries.

Locating war and warfare at centre stage of the European mind during a pivotal phase between the 1870s and the 1890s, Matthew D'Auria has highlighted how during these years the representation of the violence of war influenced conceptualizations of and reflections upon European identities on the part of intellectuals and writers.<sup>87</sup>

<sup>84</sup> ECHEVARRIA, Imagining Future War, 34.

<sup>85</sup> CSICSERY-RONAY JR, "Empire," qt. 365.

<sup>86</sup> RIEDER, Colonialism, 29.

<sup>&</sup>lt;sup>87</sup> MATTHEW D'AURIA, "Progress, Decline and Redemption: Understanding War and Imagining Europe, 1870s-1890s," in *Making Sense of Violence: Intellectuals, Writers, and Modern Warfare*, MATTHEW D'AURIA, ed., *European Review of History: Revue européenne d'histoire*, 25, no. 5 (2018): 686-704, doi: 10.1080/13507486.2018.1471046.

#### GIULIA IANNUZZI

Furthermore, technical means of image production and reproduction had a deep impact on how violence and war were represented, disseminated and perceived in European public discourse, especially from the American Civil War onwards, with the regular use of photography to document death and slaughter in popular illustrated magazines beginning around 1900.<sup>88</sup> Illustrations and sketches were common in popular periodicals to document conflicts happening outside the European borders before the advent of photography, contributing to the circulation of news, ideas, and stereotypes across geographical and linguistic borders.<sup>89</sup>

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<sup>&</sup>lt;sup>88</sup> MARK HEWITSON "Introduction: Visualizing Violence," *Making Sense of Military Violence*, eds, MATTHEW D'AURIA and HEWITSON, *Cultural History* 6, no. 1 (2017): 1-20, esp. 10, doi: 10.3366/cult.2017.0132.

<sup>&</sup>lt;sup>89</sup> E.g. "La Guerra in Cina. Cronaca illustrata degli avvenimenti in Estremo Oriente" published in Italy by Aliprandi, in 20 installments in 1900 covered the Boxer rebellion using as sources other periodicals from Italy (e.g. "Natura e Arte"), Anglophone countries ("Times," "New York Herald"), France ("Le Journal illustré"), Germany ("Kölnische Zeitung"), Russia ("Novoye Vremya"). "La Guerra in Cina" would make for an interesting case study as regards the representation of Oriental cruelty and yellow-peril stereotypes.



Fig. 3. Argaud de Barges, "La Thiloriere ou Descente en Angleterre: Projet d'une Montgolfiere capable d'enlever 3.000 Hommes et qui ne coutera que 300.000 Francs [etc.]," etching and pointillé gravure (Paris: Chez Boulard, 1803), Bibliothèque nationale de France, accessed via Gallica, identifier: ark:/12148/btv1b8509550q.

#### Visualizing a global war: La guerre infernale

La guerre infernale was written precisely in this cultural milieu by Pierre Giffard and illustrated by Albert Robida. Published in weekly instalments in 1908, La guerre infernale gives the future-war genre a satirical edge, offering a scenario in which a global conflict of massive proportions breaks out in consequence of an argument between the German and the English ambassadors over the serving order of the dessert at a dinner. To add to the irony, the dinner is taking place during the Conférence de la paix, the annual meeting of a philanthropic organization founded by Nicholas II of Russia in 1895. In 1937, the protagonist and narrator is covering the conference periodical summit at the Hôtel de l'Entente Universelle in La Hague, for the Paris newspaper L'an 2000, when the war breaks out. While the conflict is triggered by a disagreement between European powers, the role of Japan and China in its outcome is a clear reminder of the Russo-Japanese War of a few years before.

Novelist, reporter, illustrator, watercolourist and engraver, Albert Robida (1848-1926) is today regarded as one of the founding fathers of science fiction, and recognized as a key figure on the cultural scene of the French Third Republic. He extensively worked as editor and collaborator of Paris periodicals such as *La Caricature*, and imagined visionary portrayals of a future society shaped by the technological inventions exhibited at International World Fairs such as Paris 1881, 1889, and 1900. During his life, he illustrated ninety-four books, of almost fifty of which he was sole author.<sup>91</sup>

With Giffard – a fellow journalist specialized in sport, who covered the Russo-Japanese war in 1904 – P2 Robida collaborated in various editorial projects already during the 1880s-1890s. These included the pictures for the humorous *La vie en chemin de fer* and *La vie an théâtre* (1887-1888) and *La fin du cheval* (1899) on the means of transports that were soon to replace horse-drawn carriages and the socio-economic advancements that they would bring about.

Giffard himself (1853-1922), after taking part in the 1870 war as one of the youngest lieutenants in the French *armée auxiliaire*, had become a journalist. He collaborated with numerous newspapers and periodicals including *Le Figaro*, covering,

<sup>&</sup>lt;sup>90</sup> PIERRE GIFFARD, *La guerre infernale*, illustrated by Albert Robida (Paris: Édition Mèricant, 1908), 30 weekly instalments, in-4°, 952 pp.

<sup>&</sup>lt;sup>91</sup> For an overview on recent scholarship on Robida and indications for further reading: IANNUZZI, "The Cruel Imagination," 194-195; secondary sources of particular note are: PHILIPPE BRUN, *Albert Robida, 1848-1926. Sa vie, son œuvre. Suivi d'une bibliographie complète de ses écrits et dessins* (Paris: Editions Promodis, 1984); DANIEL COMPÈRE, ed., *Albert Robida du passé au futur. Un auteur-illustrateur sons la IIIe République* (Paris: Belles Lettres, 2006); SANDRINE DORÉ, "Albert Robida (1848-1926), un dessinateur fin de siècle dans la société des images" (doctoral thesis, Université Paris Ouest Nanterre La Défense, 2014).

<sup>&</sup>lt;sup>92</sup> JACQUES SERAY, *Pierre Giffard, précurseur du journalisme moderne. Du Paris-Brest à l'affaire Dreyfus* (Toulouse: Le Pas d'oiseau, 2008); C.G.P.C.S.M.-Fontaine d'histoire, *La Famille Giffard* (Fontaine le Dun: Fontaine d'histoire, 2007).

among other things, the technological developments in transport and communications exhibited at Paris 1878, and travelling the world as a correspondent, from war zones such as Algeria and southern Tunisia amongst others. Creator of French cycle and car races, he became editor-in-chief of *Le Petit Journal* in 1887, until moving to *Le Vélo* in 1896 after a few years of collaboration under a pseudonym, and then to *L'Auto* in 1904.

One may assume that one of the reasons Giffard mentions for choosing a humorous slant in his work on the railway in the "Préface" of La vie en chemin de fer also applies to La guerre infernale: "... avec la forme humoristique l'auteur a pu s'assurer le concours de l'un des crayons les plus spirituels de notre époque, et c'est là un gros atout dans son jeu, pour ne pas dire plus."93 He is referring to none other than Robida, of course, whose contribution is very likely to have been more than just illustrating: many themes and inventions are reprises of ideas and scenarios already imagined in the above-mentioned Le vingtième siècle, and its sequel La guerre au vingtième siècle, including means of instant communication, aerial means of transport, innovative weapons.94 Furthermore, La guerre infernale shares with other works by Robida an interest in social aspects (such as the role of women, Figure 6),95 and in the consequences of technology for everyday life and customs and habits. As Philippe Willems has summarized, "What really distinguishes Robida from other nineteenthcentury writers of conjectural fiction is the depth of his portrayal of the future, the real-life dimension ... halfway between Jules Verne's detailed mechanical explanations and H. G. Wells's psychological realism." 96

The global backdrop against which the protagonists' adventures take place, unlike the mainly French and Parisian setting of *Le vingtième siècle* and *La vie electrique*, is reminiscent of the *Voyages très extraordinaires de Saturnin Farandoul* (1880). <sup>97</sup> Paris serves nonetheless as a barycentre for the adventures of *La guerre infernale*'s protagonist. It is

<sup>&</sup>lt;sup>93</sup> "... thanks to the humorous form, the author was able to secure the collaboration of one of the wittiest pencils of our time, who was a big asset to his work, to say the least." PIERRE GIFFARD, *La vie en chemin de fer*, illustrated by Albert Robida (Paris: A la Libraire illustrée, [1888]), vii, Bibliothèque nationale de France, Gallica, ark:/12148/bpt6k1028744.

<sup>&</sup>lt;sup>94</sup> MARC ANGENOT, "Albert Robida's Twentieth Century," *Science Fiction Studies* 10, no. 2 (July 1983): 237-240; BRUN, *Albert Robida*, 33; PHILIPPE WILLEMS, "A Stereoscopic Vision of the Future: Albert Robida's Twentieth Century," *Science Fiction Studies* 26, no. 3 (November 1999): 354-378, esp. 358 and note 7.

<sup>95</sup> On Robida's representation(s) of women: Robida et l'émancipation de la Femme, thematic issue of Le Téléphonoscope. Bulletin des amis d'Albert Robida 21 (2014); SANDRINE DORÉ, "Albert Robida," vol. 1, 98, 150-152, 244 note 825, 296-299; SANDRINE DORÉ, "Entre caricature et anticipation, la Parisienne définie par Albert Robida (1848-1926)," in L'art de la caricature, sous la direction de Ségolène Le Men (Nanterre: Presses universitaires de Paris Nanterre, 2011), electronic edition, doi: 10.4000/books.pupo.2233; LACAZE, "Albert Robida," II, 72-73. Depictions of women in the army by Robida are to be found in La Vie parisienne, as early as 1875, and in Le Vingtième Siècle (1883).

<sup>&</sup>lt;sup>96</sup> PHILIPPE WILLEMS, "A Stereoscopic Vision," 360.

<sup>&</sup>lt;sup>97</sup> ALBERT ROBIDA, Voyages très extraordinaires de Saturnin Farandoul dans les 5 ou 6 parties du monde et dans tous les pays connus et même inconnus de M. Jules Verne (Paris: Librairie illustrée-Librairie M. Dreyfous, 1880), Eng. trans. The Adventures of Saturnin Fanandoul, trans. Brian Stableford (Encino, CA: Black Coat Press, 2008).

to the French capital that he returns between his adventures in the Atlantic and in Russia, and it is to Paris that knowledge and news always flow and are collected and sorted, near the palaces where crucial decisions are discussed by French authorities.<sup>98</sup>

In fact, La guerre infernale plays up a global dimension brought onto the stage of individual experience and perception by the use of new means of transport and communication that earlier works by both Giffard and Robida had represented in different contexts and/or with different strategies. The first instalment, tellingly entitled La Planète en feu, presents the idea of a global dimension compressed by the instantaneous nature of the telephone: awoken in the middle of the night by a massive fire starting in La Hague, the protagonist discovers that a war has started, but is unable to track down the incident that originated it. He will receive news of what happened in the very same hotel he is staying at only via a colleague in Paris, who gets a phone call from La Hague at the Café Krasnapolski. Similarly, it is the telephone that makes it possible to deliver ultimatums and institutional communications in real time, activating the various alliances that cause the conflict to escalate first to a European and then to a global dimension. <sup>100</sup>

Means of transport are at the centre stage from the very first pages, allowing the protagonist and his companions to travel throughout Europe and across the globe. They use an *aérocar* to head back to Paris, since the editor-in-chief asks the protagonist to cover the conflict for the newspaper *L'an 2000*, only to be redirected to the French aerial arsenal at the base in Mont Blanc.

The massive Mont Blanc arsenal (to the description of which the second instalment, Les Armées de l'air, is almost entirely devoted) includes a Leviathan formation composed by 150 attacking aircraft, supported by a regiment of bicyclesized, extremely manoeuvrable flying machines operated by couples of pilots and gunners (Figure 4). Furthermore, aerial warfare brings about consequences in the life of civilians (e.g. the use of individual shields and the construction of subterranean cities), in terms of tactics and strategies, and in the existence of specific authorities (e.g. the ministère de l'Aérotactique, ministry of aerotactic, already imagined in La vie électrique). A German bombing strikes the chemical section of the compound, where bacteriological weapons are being developed, 202 causing 150 deaths. But tragedy of

<sup>&</sup>lt;sup>98</sup> On the representation of France at war and its ideological ambivalence in *La guerre infernale*: PAUL BLETON, "La guerre telle qu'elle pourrait être," in *Lublin Studies in Modern Languages and Literature* 39, no. 1 (2015): 64-75, see 67, 70.

<sup>99</sup> On the global conflict evoked in Le Vingtième siècle: Lacaze, "Albert Robida," II, 74.

<sup>100</sup> See also ANDRÉ LANGE, "En attendant la guerre des ondes: les technologies de communication dans les anticipations militaires d'Albert Robida," in Le Téléphonoscope. Bulletin des amis d'Albert Robida 11 (2004), 7-17

<sup>&</sup>lt;sup>101</sup> On Robida and aerial warfare: ALAIN BERNARD, "Robida et les dirigeables," in *Le Téléphonoscope*. *Bulletin des amis d'Albert Robida* 10 (2003): 10-11; MARCELLIN HODEIR, "La guerre aérienne à travers la science-fiction: Albert Robida," in Compère, *Albert Robida*, 117-126; here especially 120 for Robida's inventions as extrapolations from technologies of his time.

<sup>&</sup>lt;sup>102</sup> On the possible influence of Robida on Well's imagination on biological warfare: HELENA COSTA

even bigger proportion is reported from Belfort, blown up by a massive quantity of explosives that German soldiers placed under the city using a gigantic tunnel excavated from the Black Forest.

The first part of the novel is devoted to the conflict as it unfolds in Europe, with the German Reich attacking the French Mont Blanc base as well as bombing cities in France and bringing war to the other side of the English Channel. After an aerial battle in the skies above London, the protagonists and his friends end up stranded above the Sargasso Sea, where the only way to allow the others to regain altitude and leave the polar region is to drop the body of a dead companion (Figure 5). The passage to the Atlantic marks the passage of the narrative backdrop from a European to a global scale.

Along with submarines and *hommes-crabes* (6), the naval warfare is no less impressive: over the Atlantic the protagonist admires the American warship *Minnesota* on patrol (Figure 8): "Mille tonnes de deplacement, cinq turbines, trois arbres à helicer, un developpement al 15000 chevaux faisaient alors du Minnesota le Croiseur le plus rapide du monde" (instalment 12: 380). When cholera is used to wage bacteriological warfare in Russia against Chinese armies, a "train sanitaire" operates between Orenburg and Rostov, to help infected "whites" (instalments 25 and 26).

Economic interconnectedness is also put to use by battling countries. During the first days of the war, Britain floods Germany with false Deutschmarks in order to sink its economy (instalment 5), and when European powers coalesce against the threat of an invasion from China a "yellow tax" is approved within the alliance to fund the war against Asian powers (instalment 21).

In fact, while there is a treaty in place at the beginning of the war between Japan and France and Japanese aviators are perfecting their training with the French Voleurs corps (instalment 8). When he arrives in North America, the protagonist learns that Japanese immigrants in California had long been preparing for the invasion of America, and that now, supported by troops from Japan, are engaged in terrible battles which caused thousands of deaths, and left every American survivor deranged due to the trauma, hospitalized in a dedicated facility.

Japan and the US fight a naval battle of epic proportions between the Bahamas, Cuba and Florida (instalments 15, 16). From Canada to Africa, the Japanese multiply their invasion plans, acting as the leading force behind which the Chinese are also mobilized. It is against the backdrop of the Atlantic space and with the Asian arrival on the scene that the conflict starts to assume a fully global scale and at the same time a clear racial connotation: the "yellow" threat leads "white" nations to overcome their

and JOSEP-E. BAÑOS, "Bioterrorism in the Literature of the Nineteenth Century: The Case of Wells and "The Stolen Bacillus," in *Cogent Arts & Humanities* 3, no. 1 (2016) 1-11, see 6-7, doi: 10.1080/23311983.2016.1224538.

current disagreements and strike up new alliances. The American president arguing for a pact with the British warns about the prolificacy of Asian populations, contrasting it with the demographic decline of the "whites" (instalment 16). Japanese and Chinese armies invade California and block the Panama Canal (instalments 18 and 20), while Europeans helps Russia to construct a "muraille blanche," "white great wall," against the Chinese plans to invade Europe (instalment 21). The assassination of Tsar Nicholas II and a riot or revolution demanding a new constitution leaves Russian open to Chinese occupation (instalments 21-23).

By 1908, the stereotypes and racialized representation of Asian populations used in La guerre infernale – such as the demographic pressure and willingness to sacrifice millions of individuals (instalments 16, 24), the comparisons with insects such as ants (instalment 23, Les fourmis jaunes), the topoi of Oriental cruelty - were well established in popular Western yellow-peril narratives and propaganda. <sup>103</sup> Bacteriological weapons are used to reduce their numbers (instalment 25, A nous le choléra!) but soon these weapons pollute the waters and affect the "whites" as well. Among yellow-perils coeval narratives, Jack London's "The Unparalleled Invasion" ought to be mentioned for a similar idea of an annihilation of Chinese people operated – successfully in London's case - by Western powers with bacteriological weaponry, after the realization of China's potential for world domination thanks to its demographic strength. Written around 1907 and first published in 1910, London's short story is mainly set in 1976, and it is framed as written retrospectively from a yet even more distant future. According to John Swift, "The Unparalleled Invasion" "clearly gives expression to an uneasy premonition, in London, in his culture, or in both, of the precariousness of white racial supremacy; but, more interestingly, it pays homage in language and plot to an emergent science and scientism that made racial anxieties simultaneously more frightening and more manageable."104 The parallel might help today's reader to better grasp the significance of the yellow peril theme at the time, and to see how a grotesque exaggeration and satirical elements are exploited by Giffard and Robida's in expressing in words and images racial fears.

The fear of an overwhelming wave is aptly represented by the image of an

THORALF KLEIN, "The Yellow Peril"," EGO – European History Online, <a href="http://iegego.eu/en/threads/european-media/european-media-events/thoralf-klein-the-yellow-peril">http://iegego.eu/en/threads/european-media/european-media-events/thoralf-klein-the-yellow-peril</a>; JOHN KUO WEI TCHEN and DYLAN YEATS, eds, Yellow Peril! An Archive of Anti-Asian Fear (London: Verso, 2014); JOHN W. DOWER, "Yellow Promise / Yellow Peril: Foreign Postcards of the Russo-Japanese War (1904-05)," in MIT Visualizing Cultures, 2008, see especially section Yellow Peril', <a href="https://visualizingcultures.mitedu/yellow promise yellow peril/yp essay04.html">https://visualizingcultures.mitedu/yellow promise yellow peril/yp essay04.html</a>. See also MICHAEL KEEVAK, Becoming Yellow: A Short History of Racial Thinking (Princeton and Oxford: Princeton University Press, 2011).

<sup>104</sup> JOHN N. SWIFT, "Jack London's "The Unparalleled Invasion:' Germ Warfare, Eugenics, and Cultural Hygiene," in *American Literary Realism* 35, no. 1 (2002): 59-71, qt. 60; see here 67 for remarks on the narration's grotesque detachment, elements of a dark Swiftean approach, and an ironic distance between London and his narrator. On London, the Russo-Japanese war, and yellow peril fears see also DANIEL A. MÉTRAUX, "Jack London: The Adventurer-Writer who Chronicled Asian Wars, Confronted Racismand Saw the Future," in *The Asia-Pacific Journal* 8, no. 4.3 (2010): 1-10.

artificial hill made by soldier with their bodies, which the Chinese army erects on its march towards Moscow so that the officers can get a better view of their surroundings (instalment 28, *Les Chinois à Moscow*, Figure 9). The scene is described with horror by the narrator, who is following the Chinese army as a prisoner with other Westerners (Figure 10). In Moscow, horrible tortures and painful deaths await them, drawing on the *topos* of Oriental cruelty, not unprecedented in Robida's work, nor isolated in popular French and Western publications, where, by the end of the 1880s, Chinese torture had become a fairly common topic in public discourse, thanks not only to the interest in Chinese society and culture created by developments in East-West political and cultural relations such as the opening of a Chinese embassy in London in 1877 and the Chinese section at the 1878 Paris International Exhibition, but also to the proliferation of specific tropes in popular literature<sup>105</sup> (instalments 28 and 29, *Dans l'avenue des supplices*, Figure 11).

Throughout the novel, nature is bent and shaped by technology: tunnels of gigantic proportions are excavated both by the Germans when they attack France, and in England where the Tube is re-purposed as a bomb shelter, transferring the entire capital underground (instalments 8 and 9). The famous London fog is cleared with specially developed acetylene guns (instalment 10). To ward off Japanese battleships, the Americans create a cage of fire on the water using a system of oil pipes off the coast of Florida. Thanks to the genius of an inventor by the name of Erikson, the US Department of Power and Electricity manages to jam the Japanese compasses, and to freeze the water by suddenly removing the oxygen from it (Figures 5 and 12). Thousands of Japanese corpses are burnt, poisoning the air with a terrible stench. Similarly, by altering the chemical composition of the atmosphere, and by electrifying the soil (Figure 5), thousands of casualties are caused on land, in a terrible exercise of "scientific massacre" (*La tuerie scientifique*, instalment 17).

La guerre infernale, as the precedent La guerre au vingtième siècle, with its rutilant imagination, and its narrative frame ultimately neutralizing tragedy and destruction as part of a dream from which the protagonists wakes in the last pages, testifies Robida's as "one of the very few ... who found it possible to be funny about 'the next great war." <sup>107</sup> It is worth noting that the experience of the First World War will radically change his approach. Immediately after the conflict, Robida published a short illustrated in-folio album - Le Vautour de Prusse – and a 302-pages novel - L'Ingénieur Von Satanas – developing the same anti-Prussian reflections, and revisiting the war

<sup>&</sup>lt;sup>105</sup> ANDRÉ LANGE, "Le rire et l'effroi. Supplices et massacres orientaux dans l'oeuvre d'Albert Robida", in *Le Supplice Oriental dans la littérature et les arts*, ANTONIO DOMINGUEZ LEIVA and MURIEL DETRIE, eds, (Neuilly-lès-Dijon: Editions du Murmure, 2005), 135-169; JEROME BOURGON, "Les scènes de supplices dans les aquarelles chinoises d'exportation," 2005, *Chinese Torture / Supplices Chinois*, accessed January 21, 2020, http://turandot.chineselegalculture.org/Essay.php?ID=33.

<sup>106</sup> On the precedent of the tube in La vie electrique see also LACAZE, "Albert Robida," I, 65.

<sup>&</sup>lt;sup>107</sup> CLARKE, "Future-War Fiction: The First Main Phase," 398.

theme with a more pronounced anti-militarist spirit. <sup>108</sup> L'Ingénieur's second prologue, taking place in the fictional "Peace Palace" in La Hague where a pacifist international conference is inaugurating the palace, in 1909, seems to suggest a direct reprise of La guerre, followed by its pessimistic fulfilment. Scientists, politicians, philosophes, and millionaires from all around the world are championing a pacific progress and greeting the beginning of a new global golden age, brought about by techno-scientific progress. But scientific marvels become means of mass destruction in the hand of the greedy Prussians, corrupted by the evil engineer Von Satanas, a diabolical figure recurring through the ages, that might as well be seen as the embodiment of human nature's dark side and inclination towards violence and conflict. In 1929, Europe and the whole world have become home to a new prehistoric and barbaric civilization, a post-apocalyptic land, with survivors living underground. Endless irregular lines of trenches, bomb craters, burrows and tunnels disfigure the Earth surface and render the similar to the Moon's.

Without losing the adventurous edge that characterized *La guerre* as well as other Robida's earlier works, *L'Ingénieur* offers a rather more pessimistic and sinister take not so much on science *per se* – which is presented as the key to a possible future of harmony and prosperity – but on the human ability to put differences aside and resist belligerent instincts.

#### Conclusive remarks

In conclusion, La guerre infernale's case study can today foster a better understanding of how the representation of the future begun to work as a malleable setting for speculative narratives, and how related genres emerged and found success in early-contemporary European cultural consumption.

This 1908 feuilleton invites today's reader to mind a plurality of levels, exploiting critical tools at the intersection of different scholarly traditions, so that it might in turn be used to provide concrete evidence of phenomena involving complex historical traditions and communicative circuits. In other words, what one might call a global microhistory of Giffard and Robida's fiction locates its object against the backdrop of a long history of ideas, as an apt expression of the emergence of a world technology-mediated interconnectedness in its specific early-contemporary European historical and cultural context, and as a unique embodiment of its author(s) ideas.

<sup>&</sup>lt;sup>108</sup> Albert Robida, Le Vautour de Prusse (Paris: Georges Bertrand, 1918); Albert Robida, L'Ingénieur Von Satanas (Paris: La Renaissance du Livre, 1919), Bibliothèque nationale de France, Gallica, identifier: ark:/12148/bpt6k14217576. A brief mention is in WILLEMS, "A Stereoscopic Vision," 376-377, note 18.

Speculations about the future between the late-modern and the-early contemporary periods – from Guttin's *Epigone* to *Macaria*, from Madden to Mercier and Condorcet – represent through fiction the deep changes that affected ideas of time in the European mind in the age of colonial expansion. Knowledge from remote parts of the globe and close encounters with other societies generated an information flow towards the centers of imperial powers, which fed new attempts at comprehend and systematize the varieties of the human life. Literature and illustration exploited – and some time, in the hands of authors such as H. G. Wells, called into question – the consolidation of history as progress. A consequent hierarchization of human experiences, from the mid-nineteenth century on, informed the juxtaposition of spatially and temporally distant civilizations in complex cultural artifacts such as international exhibitions and fairs.

Tapping into the same cultural background, futuristic fictions interpreted the increasingly central role that science and technology had in shaping everyday life, and, on a different scale, power relations through the globe. Literary and visual cultural products to be found in popular magazines and illustrated book collections, such as Robida's works, shared the thematization of the future and the imaginative use of techno-science as wonder that characterised international expos especially from the 1880s on.

Satirizing the present, extrapolating possible consequences from coeval inventions and trends, offering a device to produce awe – or horror – in its readers, and putting techno-science at center stage in its narrative invention, Robida's tomorrow is today all the more fascinating as it epitomizes a phase in the cultural history of the future in which the deep structures that informed the conceptualization of historical time underpinned new forms of mass cultural consumption. In so doing, Robida's imagination shows at work the genre's distinct treatment of causal mechanisms in time: "These projections ... playfully represent the colonization of the future by the present, through the forceful extension of contemporary trends, and, at the same time, the returning feedback-colonization of the present by the future, the reified anticipations, anxieties, and projects of our technoscientific problem-solving." 109

<sup>&</sup>lt;sup>109</sup> ISTVAN CSICSERY-RONAY, Jr., *The Seven Beauties of Science Fiction* (Middletown: Wesleyan University Press, 2008), 91.

Between the seventeenth and the early nineteenth century, future-conflicts scenarios were used to argue political options and to reflect on a secularized history, in which society might be shaped by human action. These works are precedent to the codification of future wars as a speculative fiction subgenre with a recognizable set of conventions, appealing to a specific horizon of expectations. Technology as means of world interconnectedness as well as spectacle and source of wonder, anxieties fueled by tensions between European powers and by the emergence of non-Western actors provided fertile ground to the fortunes of future-war narratives during the nineteenth and the early twentieth century. Imagined conflicts to come put into focus the critical relations between technology and globalization and between technology and power relations that characterized a mature phase of European imperialistic expansion.

In La guerre infernale's representation of future warfare and its effect on society, an imagination that extrapolates from the compression of a global space-time through technology is at work, drawing on exhibitionary mechanisms made popular by those international expos with which Albert Robida was familiar, such as Paris 1981, 1989, and 1900. Robida's case illustrates how shared mechanism between fiction and expos might be interpreted in light of an isomorphism derived from the existence of a common matrix – a shared set of roots in the same cultural-historical context – as well as of a complex set of mutual influences, including the adoption of the same science-fictional mechanisms by the creative agencies involved.

Like other future-war narratives, La guerre projected fears of a techno-scientific driven modernity applied to armed conflicts. After 1918, war experienced in the heart of Europe will favour the pessimistic shift represented by L'Ingénieur Von Satanas. Yet, already before 1915, many recent experiences outside the European space (from Southern Africa with the Anglo-Zulu and Anglo-Boer Wars, to Manchuria with the Russo-Japanese War, from French Indochina with the Franco-Siamese War to China with the Boxer rebellion) gave an immediate evidence to fears that took centre stage in the late nineteenth-early twentieth century European mass media. Giffard and Robida's feuilleton, with its serialized formula, exploitation of sensational plot elements, and ability to tap into widespread anxieties, was again an excellent example of that in many ways.

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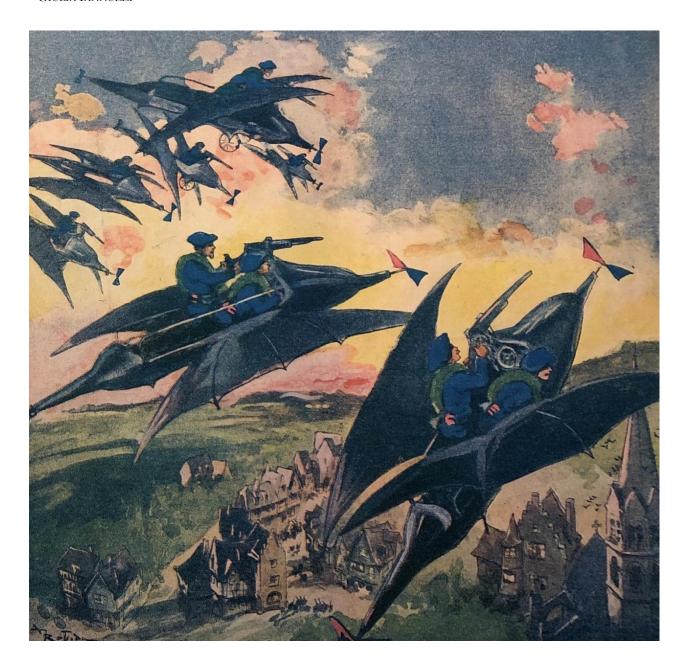


Fig. 4. French military *aérocars*, each manned by a pilot and soldier firing a machine gun. Albert Robida, illustration for *La guerre infernale* by Pierre Giffard (Paris: Èdition Méricant, 1908), published in instalment 2, *Les armées de l'air*, cover.

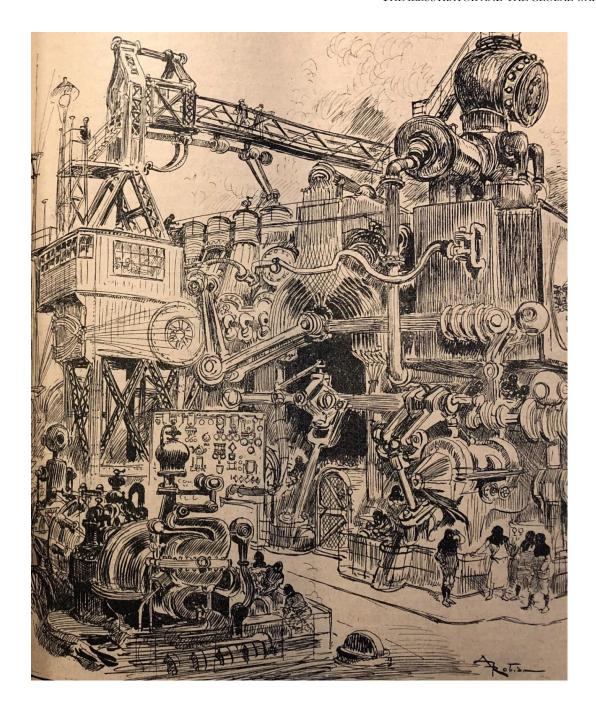


Fig. 5. The American scientist Erickson shows to the protagonist his electro-magnetic station. Employing one hundred engineers and three hundred electricians, the station powers Erickson's inventions, capable of electrocuting thousands of men by transmitting electricity through the ground, and freezing the water on the surface of vast bodies of water, Albert Robida, illustration for *La guerre infernale* by Pierre Giffard (Paris: Édition Méricant, 1908), published in instalment 16, *La mer qui gèle*, 497.



Fig. 6. A women's battalion in the North American army. Albert Robida, illustration for *La guerre infernale* by Pierre Giffard (Paris: Édition Méricant, 1908), published in instalment 13, *La cohue des fous*, 415, reference to text 412. Courtesy of Civico Museo di guerra per la pace "Diego de Henriquez" of the City of Trieste.

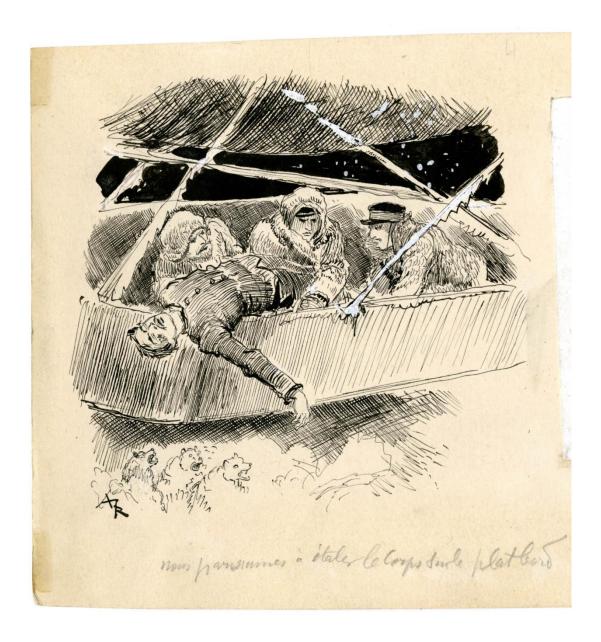


Fig. 7. Albert Robida, illustration for *La guerre infernale* by Pierre Giffard (Paris: Édition Méricant, 1908), published in instalment 12, *Perdus dans l'Atlantique*, 362, reference to text 362. Courtesy of Civico Museo di guerra per la pace "Diego de Henriquez" of the City of Trieste.

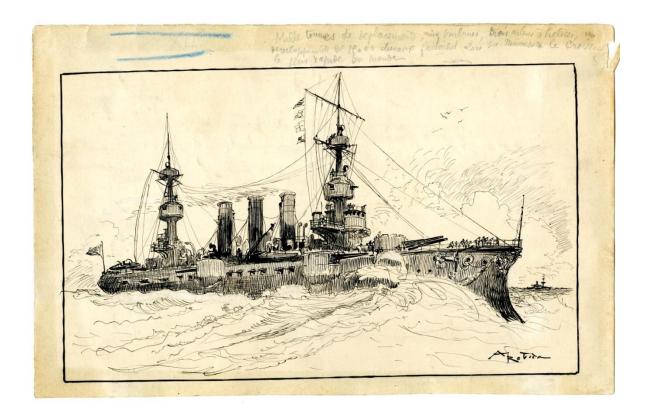


Fig. 8. Albert Robida, illustration for *La guerre infernale* by Pierre Giffard (Paris: Édition Méricant, 1908), published in instalment 12, *Perdus dans l'Atlantique*, 380, reference to text 382. Courtesy of Civico Museo di guerra per la pace "Diego de Henriquez" of the City of Trieste.



Fig. 9. Albert Robida, illustration for *La guerre infernale* by Pierre Giffard (Paris: Édition Méricant, 1908), published in instalment 28, *Les Chinois a Moscoul*, 885, reference to text on page 882. Courtesy of Civico Museo di guerra per la pace "Diego de Henriquez" of the City of Trieste.

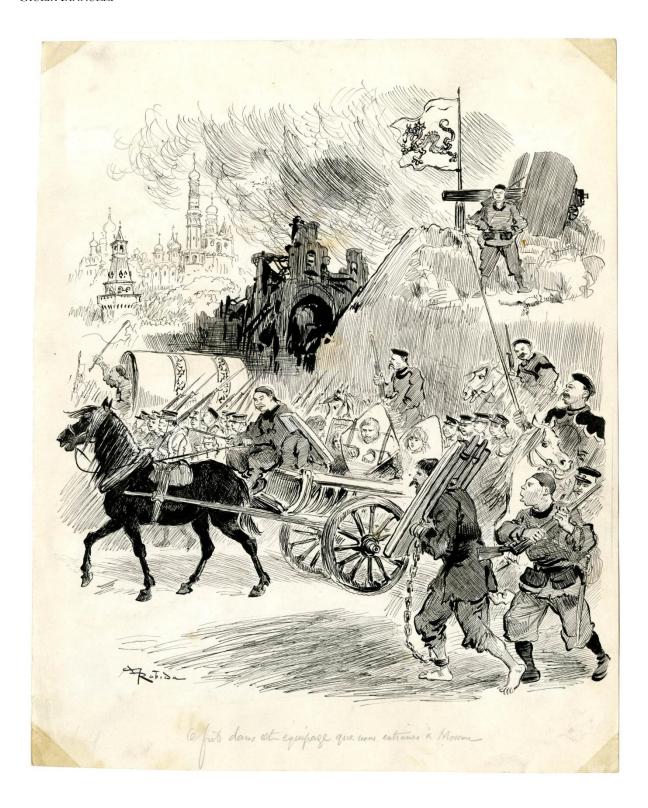


Fig. 10. Albert Robida, illustration for *La guerre infernale* by Pierre Giffard (Paris: Édition Méricant, 1908), published in instalment 28, *Les Chinois a Moscoul*, 895, reference to text on page 592. Courtesy of Civico Museo di guerra per la pace "Diego de Henriquez" of the City of Trieste.



Fig. 11. Albert Robida, illustration for *La guerre infernale* by Pierre Giffard (Paris: Édition Méricant, 1908), published in instalment 29, *Dans l'Avenue des supplices*, 898, reference to text on page 899. Courtesy of Civico Museo di guerra per la pace "Diego de Henriquez" of the City of Trieste.

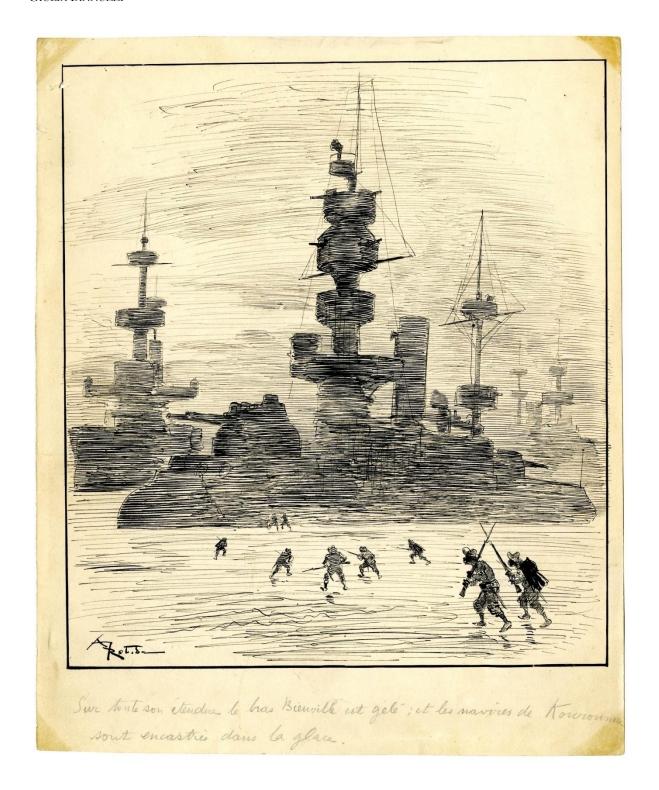


Fig. 12. Albert Robida, illustration for *La guerre infernale* by Pierre Giffard (Paris: Édition Méricant, 1908), published in instalment 16, *La mer qui gèle*, 507, reference to text on page 512. Courtesy of Civico Museo di guerra per la pace "Diego de Henriquez" of the City of Trieste.