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*Challenging the bifurcation of nature:  
women workers' education through process  
philosophy*

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*Abstract:* The bifurcation of nature taken as a gap between the scientific conception and the subjective experience of the world, is according to Alfred North Whitehead one of the major epistemic fallacies of modernity. In this paper I draw on insights from Whitehead's process philosophy to map some analytical trails that I have followed in my work on the archives of women workers' education. There are three themes that have emerged from this archival research decisively challenging the bifurcation of nature: the power of associations, the coexistence of permanence and flux and *amor mundi*, love for the world. In this light women workers' education emerges as an assemblage of feelings, cognitive understandings, imaginative enactments and creative forces, wherein nature and culture are inextricably entangled.

Key words: bifurcation of nature; process philosophy; women workers' education; amor mundi, associations, permanence and flux

## *Nature, Education, History*

What I am essentially protesting against is the bifurcation of nature into two systems of reality, which, in so far as they are real, are real in different senses.<sup>1</sup>

The bifurcation of nature, taken as an imposed separation of reality between what is conceived by science and what is experienced by human beings is according to Alfred North Whitehead one of the major epistemic fallacies of modernity. As an erroneous conceptualization of the relation between science and the world, it forms a serious impediment in how we approach important philosophical questions around the nature of the mind, the evidence of experience, the value of interpretations, and most importantly the coherence of knowledge. In this light, our conceptualization of nature radically intervenes in 'the historian's craft'<sup>2</sup>, the way we research, interpret, read, write and effectively rewrite history.

In this paper I follow Whitehead's conception of nature and the real beyond the fallacy of bifurcation and I consider the effects of this approach in the historiographical operation. What I argue is that Whitehead's process philosophy opens up vistas in seeing and understanding entanglements of freedom and imagination in the long durée of women workers' education. Challenging 'the bifurcation of nature' modifies our understanding of causality and space-time relations and shifts the historian's attention from the frustration and impasses of what has been locked in the past to on-going historical processes, unrealized possibilities and different images of thought around what education for justice is, what it can do and how it can become other.

My paper contributes to current debates in the field of the history of education in recasting the relation between the supposedly 'unchangeable "nature" on the one hand, and a historically conceived, changing society, on the other'.<sup>3</sup> 'Education and Nature' was indeed the central theme of the 40<sup>th</sup> International Standing Conference for the History of Education (ISCHE) in Berlin in the summer of 2018, where a wide range of approaches, analytics and interpretations were presented and discussed, including our understanding of the very 'concept of nature' itself. In the context of revisiting and rethinking relations between nature, history and the social there is currently a burgeoning body of literature around the importance of process philosophies and new materialist approaches in reconfiguring and rewriting histories of women's education.<sup>4</sup> Joyce Goodman and Sue-Anderson Faithful have used Kathryn Glead's term of

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<sup>1</sup> Alfred North Whitehead, *The Concept of Nature: The Turner Lectures. Delivered in Trinity College. November 1919.* (Cambridge: Cambridge University Press, 1964), 31.

<sup>2</sup> Marc Bloch, *The Historian's Craft*, trans. Peter Putnam (Manchester: Manchester University Press, 1991 [1954]).

<sup>3</sup> ISCHE 40, Education and Nature, Call for papers, [https://www.ische.org/wp-content/uploads/2017/11/Call-for-Papers\\_en.pdf](https://www.ische.org/wp-content/uploads/2017/11/Call-for-Papers_en.pdf) [Accessed, November 12, 2019]

<sup>4</sup> For an excellent overview of this field, its various trends and its effects in the historiographical operation see Sue Anderson-Faithful & Joyce Goodman, 'Turning and twisting histories of women's education: matters of

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'fresh nodes of departure'<sup>5</sup> to map these emerging methodological approaches in the field 'that seek to capture the dynamic interplay of ideas, conditions and practices by shifting attention more explicitly from descriptions of content to processes, practices, doings and actions'.<sup>6</sup> Terri Shedon, Julie McLeod and Noah Sobe have further drawn our attention to the importance of rethinking time and temporalities in the wake of the spatial turn in histories of education and beyond.<sup>7</sup>

The paper unfolds in five sections: first I present, explicate and discuss Whitehead's notion of 'the bifurcation of nature', particularly focusing on the effects of this epistemic challenge in reconfiguring causality, time/space entanglements and events in the historiographical operation. In the next three sections I discuss three themes that have emerged from an analytical approach that challenges the bifurcation of nature: the power of associations, the coexistence of permanence and flux and *amor mundi*, love for the world. By way of conclusion, I draw on the concept of 'uchronia' to imagine other histories of women's education 'to come'. In this light women workers' education emerges as an assemblage of feelings, cognitive understandings, imaginative enactments and creative forces, wherein nature, history and culture are inextricably entangled.

### *The real which is only one: causality, space/time entanglements and events*

In a short autobiographical essay part of his book *Science and Philosophy*, Alfred North Whitehead writes about how 'historical tradition is handed down by the direct experience of physical surroundings',<sup>8</sup> particularly referring to the 'imaginative life of the Southern English professional class' and more specifically to the school he attended at Sherborne in Dorsetshire, whose history went back to the 8<sup>th</sup> century, claiming Alfred the Great as a pupil; 'In my last two years there the Abbots room was my private study; and we worked under the sounds of the Abbey bells brought from the Field of The Cloth of Gold by Henry VIII'.<sup>9</sup> According to Whitehead, 'the education of a human being is a most complex topic, which we have hardly begun to understand'<sup>10</sup> and the aim of his philosophy was exactly that: to provide tools for disclosure and understanding, criticizing and challenging all sorts of conceptual absurdities, particularly pointing to the need for a new synthesis of subjects and objects, as well as of a recasting of the fields of agency and activity.

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strategy' and 'Afterword: turning and twisting histories of women's education: reading reflexively and diffractively'. *Women's History Review*, doi: 10.1080/09612025.2019.1611118 (2019).

<sup>5</sup> Kathryn Gleadle, 'The Imagined Communities of Women's History: Current Debates and Emerging Themes, a Rhizomatic Approach', *Women's History Review* 22, no. 4 (2013): 524–40.

<sup>6</sup> Sue Anderson-Faithful & Joyce Goodman, 'Turns and twists in histories, of women's education', *Women's History Review*, doi: 10.1080/09612025.2019.1611118 (2019)

<sup>7</sup> Terri Seddon, Julie McLeod, and Noah W. Sobe, 'Reclaiming Comparative Historical Sociologies of Education', in *World Yearbook of Education 2018: Uneven Space-Times of Education: Historical Sociologies of Concepts, Methods and Practices*, ed. Julie McLeod, Noah W Sobe, and Terri Seddon (London: Routledge, 2018). See also the online teaching resource 'Looking Back Going Forward: School\_Time in Flux and Flow in Europe and Beyond', edited by Geert Thyssen and Fabio Pruneri (Liverpool: EERA Network 17, 2018) <https://lookingbackgoingforward.home.blog>

<sup>8</sup> Whitehead, *Essays in Science and Philosophy*. (London: Rider, 1948).

<sup>9</sup> *Ibid.*, 8.

<sup>10</sup> *Ibid.*, 9

The critique of 'the bifurcation of nature' as a tendency in modern philosophy to divide reality into two parts and then assign to them different degrees of reality, emerged early on in Whitehead's philosophical work. 'The nature apprehended in awareness and the nature which is the cause of awareness'<sup>11</sup> cannot be separated, he wrote in *The Concept of Nature*, the book that brought together his 'Tanner Lectures' delivered at Trinity College Cambridge in November 1919. It was in these lectures that 'the bifurcation of nature' was first presented, explicated and discussed, but the concept runs as a red thread throughout Whitehead's major philosophical work, *Process and Reality*,<sup>12</sup> as I will discuss further on in the paper. In her long engagement and dialogue with Whitehead's philosophical work, Isabelle Stengers has pointed to the effects of this critique in reconceptualizing causality and subject-objects relations in scientific research and beyond:

Nature bifurcates when we assert that there exists on one side a causal, objective nature—for instance the molecular mechanisms explaining the functioning of neurons and the interactions between neurons—and on the other side a perceived nature full of sounds, odours, enjoyments and values, all these so-called secondary properties being subjective ones, attributed to nature by the perceiving subject.<sup>13</sup>

According to Whitehead, the meeting point of such different senses of reality is the mind and it is in the mind that the fallacy emerges and unfolds as four interrelated themes that need to be considered and deconstructed: a) causality, b) time, c) space and d) delusions.<sup>14</sup> It is these four themes that I will discuss next, in relation to some of the problems arising in the historiographical operation.

Whitehead's bifurcation theory was an attempt 'to exhibit natural science as an investigation of the cause of the fact of knowledge,'<sup>15</sup> but he carefully pointed out that 'we can only know the 'what' and not the 'why' of knowledge.'<sup>16</sup> We can only analyze the content of knowledge as produced and retained in our mind, 'but we cannot explain why there is knowledge' he argued.<sup>17</sup> In surpassing the question of 'why' we automatically invalidate the split between causal and perceived nature and we immerse ourselves in understanding the complexities of the nature we emerge from and we are part of.

In thus seeking to address 'the what of knowledge' beyond the fallacy of bifurcation, Whitehead initiated the philosophy of process: his thesis was that the world is one organism within which material and mental interrelations emerge. Taking further the questions of the

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<sup>11</sup> Whitehead, *The Concept of Nature*, 31.

<sup>12</sup> Alfred North, Whitehead, *Process and Reality* [Corrected Edition, ed. David Ray Griffin and Donald W. Sheburne. (New York: The Free Press, 1985[1929]), 203.

<sup>13</sup> Isabelle Stengers, 'A Constructivist Reading of Process and Reality', *Theory, Culture and Society*, 25, no 4 (2008): 98.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

<sup>16</sup> Ibid.

<sup>17</sup> Ibid. 32

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'gesture of bifurcation'<sup>18</sup> as presented in the Tarner lectures, the aim of his process philosophy was 'to exhibit in its outmost completeness our concept of reality'. His famous statement that 'we think in generalities but we live in detail'<sup>19</sup> is crucial for understanding history as process reality: 'to make the past live we must perceive it in detail, in addition to generalities' he argued.<sup>20</sup>

It is here that time and space become crucial in the philosophy of process as the plane on which 'all-embracing relations' can be mapped: 'The perceived redness of the fire and the warmth are definitely related in time and in space to the molecules of the fire and the molecules of the body', he wrote.<sup>21</sup> But time and space are abstractions for Whitehead, which emerge from the fundamental elements of nature which are not organisms or material entities such as atoms or molecules, but 'events'. For Whitehead an event is a happening, an occurrence, an occasion, a phenomenon. Events happen and disappear and then conceptual abstractions are constructed to account for them. How do these abstractions emerge? According to Whitehead,

The fundamental fact which renders [the time/space] abstraction possible is the passing of nature, its development, its creative advance, and combined with this fact is another characteristic of nature, namely the extensive relation between events. These two facts, namely the passage of events and the extension of events over each other, are in my opinion the qualities from which time and space originate as abstractions.<sup>22</sup>

In the context of these abstraction, Whitehead identifies time/space ordering and time/space occupation as two modes through which we understand or rather misunderstand time and space: abstract time is taken as 'the ordered succession of durationless instants and these instants are known to us merely as the relata in the serial relation which is the time-ordering relation, and the time-ordering relation is merely known to us as relating the instants'.<sup>23</sup> Hand in hand with the fallacy of the time-ordering relation, comes the time-occupation relation, notes Whitehead: 'we are to suppose that time is known to us independently of any events in time. What happens in time occupies time.'<sup>24</sup>

Indeed the historiographical operation is still framed within these two fundamental relations of the absolute theory of time: The dominant perception in history and beyond is that 'time extends beyond nature.'<sup>25</sup> Our thoughts, reflections, recollections are 'in time' and thus time appears to have deeper roots in reality than has nature, Whitehead critically observes.<sup>26</sup>

The absolute theory of space runs in parallel with the two relations outlined above:

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<sup>18</sup> Didier, Debaise, *Nature as an Event: The Lure of the Possible*, trans, Michael Halewood (Durham and London: Duke University Press, 2017).

<sup>19</sup> Whitehead, *Essays*, 26.

<sup>20</sup> Ibid.

<sup>21</sup> Whitehead, *The Concept of Nature*, 32.

<sup>22</sup> Ibid., 33.

<sup>23</sup> Ibid.

<sup>24</sup> Ibid., 34.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid.

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'The space-ordering relation, which holds between points, and the space-occupation relation between points of space and material objects.'<sup>27</sup> The absolute theory of space is weaker though, since space does not seem to extend beyond nature as it is the case with time and thus the connection of thought with space is consequently weaker than the time/thought relation. While time is taken as irrevocable, this doesn't apply to space.

It is the consideration of these two analogous relations, time/space-ordering and time/space occupation that underpins the fallacies of two senses of reality and of the causality of nature in Whitehead's analysis. What stays outside this determinate time/space framework are delusions: 'events which appear in temporal periods and spatial positions' without the intervention of respective causal events.'<sup>28</sup>

There are thus three main issues with the theory of two natures: a) it seeks for the cause of the knowledge of the thing known instead of seeking for the character of the thing known; b) it assumes a knowledge of time in itself apart from events related in time; c) it assumes a knowledge of space in itself apart from events related in space.<sup>29</sup>

What is the role of science then in taking nature as one reality? Simply put it is the coherence of knowledge that science is examining: the understanding of relations within nature, both material and mental and always interrelated as such. As Stengers has aptly commented, the bifurcation of nature is a case of radical incoherence, 'an ever-renewed source of problems of our own making [as well as of] abstractions organized around human perception, freedom, intentionality or responsibility'.<sup>30</sup>

It is in this milieu of seeking for coherence within the historiographical operation and beyond that I now want to map some analytical trails that I have followed in my work in the archives of women workers' education. In doing so I particularly highlight and discuss three interrelated themes that emerge as effects of challenging the bifurcation of nature: a) the power of associations; b) the coexistence of permanence and flux and c) *amor mundi*, love for the world.

These three themes revolve around some questions that deeply troubled me when I started excavating the archive of seamstresses' personal and political writings in nineteenth century France<sup>31</sup>: why is it that feminist histories to our own days have always neglected or at best downplayed the fact that feminist activism and thought first sprang from the ranks of women workers? Why have we never learnt that 'the right to work' preceded 'the right to education' and 'the right to vote'? Why have feminist theorists very rarely engaged with the intellectual lives of women workers?<sup>32</sup> It is at this point that Karen Barad's crucial question of 'how matter

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<sup>27</sup> Ibid.

<sup>28</sup> Ibid., 38.

<sup>29</sup> Ibid., 39.

<sup>30</sup> Stengers, 'A Constructivist Reading', 98

<sup>31</sup> See Maria Tamboukou *Sewing, Fighting and Writing: Radical Practices in Work, Politics and Culture* (London: Rowman & Littlefield, 2015).

<sup>32</sup> For a review of such trends, omissions, as well as bright exceptions, see Maria Tamboukou, *Women Workers' Education, Life Narratives and Politics: Geographies, Histories, Pedagogies*. Basingstoke: Palgrave.

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comes to matter'<sup>33</sup> turned my interest into how the historian's attention to the materiality of women's work can bring to the fore unexpected encounters. This shift was further linked to the need for the study of events and consequently analytical insights from Whitehead's process philosophy. Thus the three themes of associations, permanence and flux and *amor mundi* are exemplars of entanglements between theory, data and analysis or what Stengers has configured as 'the change of emphasis that a particular question may go through from its first starting point, when it begins to matter, to its Whiteheadian, conceptual unfolding'.<sup>34</sup>

### *In the spirit of associations*

Association was at the heart of the nineteenth century romantic socialist movements; it became particularly crucial in informing concrete political, economic and social projects, as illustrated below in an article of the first feminist newspaper in 19th century France:

For those who examine today the state of society, one fact must seem remarkable, it is the tendency of all spirits to bring themselves towards association: this fact is even more remarkable as we live in an era of dissolution, when everything goes, but everything will also be reconstructed, because as they say most often, *nothing dies, but everything is transformed*; this is a proof that *the order of the future will be to draw upon association*. At this moment human beings of all parts associate to make their opinions prevail; we women should also spread our ideas to make people understand that our EQUALITY with the man, far from lowering them, as some seem to believe, will be on the contrary a pledge of happiness for all.<sup>35</sup>

What is beautifully articulated in the above article, is the power of association in congealing moments of change in the passing of nature. This configuration is at the heart of Whitehead's process philosophy, which revolves around ontologies of becoming and not of being. On this plane of thought, association is inherent in the constitution of the real: 'every actual entity is in its nature essentially social' Whitehead has noted.<sup>36</sup> Association is also linked to the idea of novelty since what comes to exist always combines components, which were previously dispersed. 'Life is a bid for freedom ... it lurks in the interstices of every cell ... shaking off the shackles of the reiteration of the past', Whitehead has written.<sup>37</sup> It is thus highlighting the power of associations that the author of the article Marie-Reine Guindorf, urges women to form their own groups and propagate their ideas, enter processes that would be transformative and would eventually bring them together as an assemblage of new women and new ideas. Her plea for the importance of associations as well as her conviction 'that everything will also be deconstructed' was not a pure political rhetoric, a dream or a utopia, as the Marxist critique of the so called 'utopian socialisms' has argued.<sup>38</sup> On the contrary the

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<sup>33</sup> Karen Barad, 'Posthumanist Performativity. Toward an Understanding of How Matter Comes to Matter' *Signs* 28, 3 (2003), pp.801-831.

<sup>34</sup> *Ibid.*, 100.

<sup>35</sup> *La Tribune des Femmes*, April 1833, Bibliothèque National de France-Gallica la bibliothèque numérique de la BnF available at, <http://gallicalabs.bnf.fr/ark:/12148/bpt6k855277/f1.image> [Accessed, 18-4-2015]

<sup>36</sup> Whitehead, *Process and Reality*, 203.

<sup>37</sup> *Ibid.*, 104-6.

<sup>38</sup> For a critical discussion of the so called 'utopian socialist movements', see Barbara Taylor, *Eva and the New Jerusalem* (London: Virago, 1983), p.19.

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conscious awareness of associations as the ontological underpinning of how the world exists, persevere and most importantly changes, emerges as a knowledge effect of challenging the bifurcation of nature, even if this challenge was not recognised as such at the historical moment of its emergence.

But apart from the pages of the first autonomous feminist newspaper, associations were also at the heart of a strong movement for public education in France in the beginning of the July Monarchy, which culminated in 1833 when the *Loi Guizot* establishing state primary schools in all communities was implemented. Alongside her articles on gender equality, Guindorf wrote fervently about the importance of public education for girls:

Public education is a question that at the moment preoccupies all advanced people, reasonably so, because the future of society depends on its solution. It is education that will transform gross and ignorant people to human beings who are calm, know their duties and their rights and accomplish the first so as to have the right to demand the latter. In this important question I think that it is useful that women should make their voice heard.<sup>39</sup>

Despite women's fierce campaigns however, the *Loi Guizot* was a disappointment for workers in general and working women in particular: primary education was not made compulsory and was only free for children of very poor families, whose parents had to undergo the embarrassment of being certified as destitute. Even worse, there was no provision for girls, whose education was dependent on whether there was 'free space' in the local communities. Girls had to wait for the *Loi Duruy* in 1867 to be granted the same educational opportunities as boys.<sup>40</sup> Guindorf was too young and too revolutionary at the time to wait for a state solution to the problem of proletarian women's education. Although working hard as a seamstress during the day, she joined the *Association of People's Education* and she devoted her free time in the evenings to the education of 'the daughters of the people'<sup>41</sup>.

How are we then to understand the power of associations as a component of 19<sup>th</sup> century feminist interventions in the history of education? If we try to situate it within the time/space ordering and time/space occupation framework, then we are led to an impasse: 'Feminism failed in France [because] it came early [and] burned itself out' historian Theodore Zeldin has argued.<sup>42</sup> Feminist historians have successfully refuted such evaluations: 'It is now clear that feminism which indeed came early in France, was frustrated at the start and that its progress was slowed—not because it "burned itself out" but because repressive governments repeatedly burned feminism', Claire Moses has responded.<sup>43</sup> But what does 'coming early' mean? It certainly presupposes a linear process where things happen when their time, which is outside and independent of them has come, an understanding of history conditioned by

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<sup>39</sup> *Apostolat des Femmes*, February 1833, Bibliothèque National de France-Gallica la bibliothèque numérique de la BnF available at, <http://gallicalabs.bnf.fr/ark:/12148/bpt6k85525j/f5.image> [Accessed, 18-4-2015]

<sup>40</sup> See Robert D. Anderson, *Education in France, 1848-1870* (Oxford: Clarendon Press, 1975).

<sup>41</sup> This is how French proletarian women called themselves in the first feminist newspaper that they founded and edited between 1832 and 1834. See author.

<sup>42</sup> Theodore, Zeldin, *France, 1848-1945: Ambition and Love*, vol. I. New York: Oxford University Press, 1973), 352.

<sup>43</sup> Clare Goldberg, Moses, *French Feminism in the Nineteenth Century* (New York: State University of New York Press, 1984), 230.



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the time/space ordering and time/space occupation, abstractions that are effects of the fallacy of bifurcation as we have already seen.

But if we take 19<sup>th</sup> century French feminist movement as an event, 'an actual occasion' within process philosophy then our understanding radically changes. An event is not something that simply occurs or happens: rather it is a creation, an invention, a novelty, a new value that emerges and then perishes and this is how the world moves and keeps going. In this context the 1867 Loi Duruy which granted girls the same educational opportunities as boys was already included as an unrealized possibility in the 1833 Loi Guizot. Guindorf's fiery articles in *La Femme Libre*, the first autonomous feminist newspaper in France, which she had founded and edited with Desiree Veret Gay in 1830, were also 'events', 'actual occasions' initiating new processes and understandings in the history of women's work and education. The very fact that Guindorf was a proletarian woman who had taught herself how to read and write was also 'an event' disturbing the order of things.

In this light the event is to be understood as a glimpse into the unreachable, the yet to come,<sup>44</sup> a transgression of the limitations of the possible,<sup>45</sup> a flash in the greyness of the virtual worlds that surround us.<sup>46</sup> As Gilles Deleuze inspired by Whitehead has poetically put it: 'the event is not what occurs (an accident), it is rather inside what occurs... It signals and awaits us ... it is what must be understood, willed and represented in that which occurs.'<sup>47</sup> Departing from common sense, the *event* sticks out from the ordinary, marks historical discontinuities and opens up the future to a series of differentiations.

Taking the event 'as the most concrete element of the world' according to Whitehead, the historian does not look beyond or behind ideas, discourses and practices to find a causal link: the why of the event. The aim is rather to look more closely at the what of historical events, practices, relations. This is where 'associations' become both 'the what' and 'the how' of the analysis.

### *Permanence and flux*

While highlighting the importance of associations in creating a new image of thought for people's education — one that would include girls and women — Guindorf also wrote about radical futurities, times yet to come. 'We live in an era of dissolution, when everything goes, but everything will also be reconstructed, because as they say most often, *nothing dies, but everything is transformed*'<sup>48</sup>, she wrote in her editorial note on people's education that I have discussed in the previous section. In doing so, she framed her discourse within process philosophy *avant la lettre*: 'the world is always becoming, and as it becomes, it passes away

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<sup>44</sup> Friedrich W. Nietzsche, *Twilight Of The Idols or, How To Philosophize With A Hammer; The Anti-Christ*, trans. Reg, J. Hollingdale. London: Penguin, 1990[1995]).

<sup>45</sup> Michel Foucault, Michel 'A Preface to transgression', trans. Donald F. Bouchard and Sherry Simon. In *Language, Counter-memory, Practice: selective essays and interviews*, ed. Donald F. Bouchard (Ithaca and New York: Cornell University Press, 1963, 29-52).

<sup>46</sup> Gilles Deleuze, *The Logic of Sense*, trans. Mark Lester (London: Continuum, 2001 [1969]).

<sup>47</sup> *Ibid.*, 170.

<sup>48</sup> *La Tribune des Femmes*, April 1833.

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and perishes' Whitehead wrote.<sup>49</sup> As a matter of fact the analysis of the neglected notion of perishing was at the heart of his magnum opus *Process and Reality*.<sup>50</sup>

Whitehead however, has differentiated his own approach to process from the long philosophical tradition of flows and fluxes that goes back to Heraclitus: 'All things flow' [but] what sorts of things flow? [...] what is the meaning of the many things engaged in this common flux, and in what sense, if any, can the word 'all' refer to a definitely indicated set of these many things?' Moreover, how does this state of flux relate to its antithesis, 'the permanence of things-the solid earth, the mountains, the stones, the Egyptian Pyramids' Whitehead has critically asked.<sup>51</sup> In responding to such questions, Whitehead has noted that there are two kinds of fluency: the fluency of becoming a particular existent, which he calls 'concrecence' and the fluency whereby an entity that has already become enters a process of new becomings —what he calls 'transition'.<sup>52</sup> In marking concrecence and transition as two kinds of fluency in the constitution of reality, Whitehead keep flux and permanence together in his philosophy of the organism: 'we are in the present; the present is always shifting; it is derived from the past; it is shaping the future; it is passing into the future'.<sup>53</sup>

Such passages or events are difficult to pin down since this is exactly what they do: they pass and go. While they flee however, they also leave traces of their characters in nature, in objects, as well as in stories and novellas. As Whitehead puts it: 'you cannot recognise an event, because when it is gone, it is gone... but a character of an event can be recognized ... Things we thus recognize I call objects.'<sup>54</sup> As Brandon Jones has commented such characters or objects become 'the ontical aspects of events,'<sup>55</sup> and it is through them that events are perceived, recognised, remembered and narrated.

It is such characters of 'events' then that have left their traces in the archive of women workers' auto/biographical writings. In recounting her experiences at the Bryn Mawr school for women workers in the industry, Rose Pesotta (1896-1965), an anarchist labour organizer, remembered the beautiful campus: 'most of our classes are held under shady green trees on beautifully kept lawns', she wrote.<sup>56</sup> A number of photographs as well as a film in the existing literature around Bryn Mawr have visually captured the spatial dimension of women workers' educational experiences in the idyllic landscapes of the campus. Summer school students reading in the portico, sitting and discussing in the cloisters, taking a poetry-reading class on the lawn or having an economics discussion group under the trees, allow visual glimpses of cognitive and existential passages marked by intense joyful affects, that mobilized their camaraderie, knowledge and understanding. In his short autobiographical essay that I referred to in the beginning of this paper, apart from highlighting the historicity of physical surroundings, Whitehead also wrote about the importance of friends' societies in his educational experience and development at Trinity College Cambridge: 'the lectures were

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<sup>49</sup> Whitehead, *Essays*, 89.

<sup>50</sup> See *ibid.*

<sup>51</sup> Whitehead, *Process and Reality*, 208.

<sup>52</sup> *Ibid.*, 210.

<sup>53</sup> Alfred North Whitehead, *Modes of Thought* (New York: Free Press, 1968[1938]), 53.

<sup>54</sup> Whitehead, *Process and Reality*, 169.

<sup>55</sup> Jones Brandon, 'Alfred North Whitehead's Flat Ontology: Casting the Bifurcation of Nature as the Other Hard Problem of Consciousness.' *Journal of Consciousness Studies* 21.5-6 (2014): 174-195.

<sup>56</sup> Rose Pesotta, *Bread Upon the Waters*. (Ithaca: Industrial and Labor Relations Press, 1987 [1944]), 15-16.

only one side of the education. The missing portions were supplied by incessant conversation, with our friends, undergraduates, or members of the staff. ... Groups of friends were not created by identity of subjects of study ... We discussed everything- politics, religion, philosophy, literature-with a bias toward literature.' <sup>57</sup> Literature was indeed important in women workers' education:

Literature means to me the key to realms of beauty, dreams and fantasies [...] Sometimes, in the land of Poetry, I would meet with glorious sunsets, exquisite flowers, singing birds, storms on sea and on land [...] Sometimes in the land of Novels, I would see strange peoples, witness struggles between heart and mind [...] My possessing this magic key somewhat made up for my dull world.<sup>58</sup>

Jeanne Paul's narrative account of what literature meant to her beautifully expresses her imaginative leap to 'the strange lands' of Poetry and Novels and leaves traces of concrescence and transition in the process of transforming herself through learning. And it was not just through reading literature but also through literary creation that such existential passages have left their traces in women workers' autobiographies and poetry. The harmony and beauty of nature was the ontological and epistemological underpinning of their verses, revealing 'truth events' that were hidden in the rush and frustration of their working life, but also expressing intense feelings of pleasure in their encounter with nature:

Tree, beautiful tree,  
As I lie under thee,  
You intoxicate me,  
Your height makes me see  
The beauty above thee.  
Branches so loose and free  
Make me forget the slavery  
Far behind.  
The leaves full of fragrance  
And delight  
Awaken in me  
Desire for right,  
Whisper, telling me  
Of secrets beyond thee,  
O glorious thing of nature,  
I love thee.<sup>59</sup>

Women workers' autobiographical and literary writings thus became archives of characters of events, maps of lines of flight, cartographies of becoming other. Seen beyond the fallacy of bifurcation, nature was not just the backdrop wherein radical educational practices and relations unfolded, but rather the material world from which processes of concrescence and

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<sup>57</sup> Whitehead, *Essays*, 10.

<sup>58</sup> Jeanne Paul, 'Bryn Mawr Light, 1926, cited in Karyn, L. Hollis, *Liberating voices: Writing at the Bryn Mawr summer school for women workers* (Carbondale: Southern Illinois University Press, 2004), 149-150.

<sup>59</sup> Betty Katz, *Shop and School*, 1932, in Hollis, *Liberating Voices*, 135.

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transition, as well as actual entities and occasions emerged.

As I have discussed elsewhere at length, these summer schools and courses went through a range of institutional changes to survive financial, ideological and political pressures and eventually perished.<sup>60</sup> But as Whitehead reminds us, 'if you get a general notion of what is meant by perishing, you will have accomplished an apprehension of what you mean by memory and causality, what you mean when you feel that what we are is of infinite importance, because as we perish we are immortal,'<sup>61</sup> we become part of the stubborn fact of the past that participates in the emergence of the new.

When studying the history of women workers' education then nature is not just at the heart of its emancipatory project as 'the material real' of innovative pedagogies and radical knowledges, but also as the epistemological underpinning of how we can understand unrealized possibilities of education as a process. As Whitehead has succinctly put it, 'in the inescapable flux, there is something that abides; in the overwhelming permanence, there is an element that escapes into flux. Permanence can be snatched only out of flux; and the passing moment can find its adequate intensity only by its submission to permanence.'<sup>62</sup> Workers' education has always vacillated between the permanence of structures of domination and the openness and fluidity of movements and labour struggles for social justice and change. If we cannot see how concrescence and transition co-exist, then we can either fall into the impasse of reproduction theories or hang in the thin air of impossible utopias.

### *Amor mundi*

But in order to want to change the world you need to love it in the first place. It is this 'love for the world' what Hannah Arendt has called 'amor mundi' that I now want to consider through the lenses of process philosophy. As I have written elsewhere Arendt was very much influenced by Whitehead's process philosophy, particularly in bringing up natality and new beginning as a critique of the Heideggerian death time. 'I've begun so late, really only in recent years, to truly love the world that I shall be able to do that now. Out of gratitude, I want to call my book on political theory *amor mundi*', Arendt wrote to Karl Jaspers on August 6, 1955.<sup>63</sup> Being at the heart of Arendt's philosophical thought, love is intertwined with the crucial concept of plurality in her unique take on politics: 'In this realm of plurality, which is the political realm, one has to ask the old questions—what is love, what is friendship, what is solitude, what is acting, thinking, etc., but not the one question of philosophy: Who is Man' Arendt wrote in an entry in the *Denktagebuch*, her philosophical diary.<sup>64</sup> Thus Arendt's

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<sup>60</sup> Tamboukou, *Women Workers' Education*

<sup>61</sup> Whitehead, *Essays*, 89.

<sup>62</sup> Whitehead, *Process and Reality*, 338.

<sup>63</sup> Hannah Arendt and Karl Jaspers, *Correspondence, 1926–1969*, eds. L. Köhler and H. Saner, trans. R. and R. Kimber (New York: Harcourt, 1993),

<sup>64</sup> Hannah Arendt, *Denktagebuch. Bd. 1: 1950–1973. Bd 2: 1973–1975*, eds. Ursula Ludz and Ingrid Nordmann (München and Zürich: Piper, 2002), XIII.2.295

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conception of 'amor mundi' has more to do with understanding and critical thinking than with sentiment or affect Samatha Rose Hill has argued.<sup>65</sup>

It is this love for the world that was at the heart of the project for women workers' education, and has been expressed in various forms in their personal and political writings, as in Alice Foley's autobiography, *A Bolton Childhood*:

The end of the war and the advent of an uneasy peace did, however, herald a new and undreamt – of experience for it brought me within the orbit of the Workers' Educational Association. [...] Providence was kind and led my feet to a Summer School in Bangor, North Wales, organised by the W.E.A in conjunction with the Extra-Mural department of Manchester University [...] The various seminars were small but spirited; the tutors understanding and encouraging. On sunny days, in circles on the University terrace, with Snowdonian remote yet always alluring in changing mist of luminosity we humans parleyed [...] It was a strange joy to browse over the niceties of *Bishop Blougram's Apology* or to delve into the intricacies of *The Ring and the Book*. In our off-time we rambled together, swam near quiet beaches, climbed a mountain or two and invariably 'sent the sun down talking. After supper we gathered on the 'Look Out', a point overlooking the Menai Straits [...] Here led by our Welsh miners, we sang the evening into darkness to the magic of lapping water [...] It was a month of almost complete happiness; a pinnacle of joy never to be quite reached again. The spirit of the W.E.A was to sustain and accompany me through long years of humble toil.<sup>66</sup>

British labour activist Alice Foley chose memories of joy and happiness of her first summer school in workers' education to conclude the account of her early life. Her autobiographical text forcefully expresses entanglements between nature, education and love for the world. What has particularly struck me in reading it, is that the author is not interested in the 'why' of her joyful lived experiences in the Welsh mountains. Instead, she beautifully writes about the all-embracing relations of the summer school for workers that create a context for leaps into radical futures, the untimely and the unforeseen, the yet to be. Seen outside time/space ordering and space/time occupation the Welsh summer school is taken as an 'event' that illuminated her 'long years of humble toy': it is its *durée*—time perceived and lived beyond the fallacy of bifurcation— that created long-lasting effects in her life.

We need to love the world as it is, reconcile with its tragedies and this is 'only possible on the foundation of gratitude for what has been given', Arendt wrote in her philosophical diary that has yet to be translated in English.<sup>67</sup> Reconciliation is the precondition of political judgement, but also the only way to go on living, hoping dreaming and acting: 'Who has never endured this power, does not live, does not belong to the living' Arendt wrote.<sup>68</sup> Love thus creates

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<sup>65</sup> Samantha Rose Hill, 'What does it mean to love the world?', Open Democracy, 2017, <https://www.opendemocracy.net/transformation/samantha-rose-hill/what-does-it-mean-to-love-world-hannah-arendt-and-amor-mundi> [Accessed, 10-12-2017]

<sup>66</sup> Alice Foley, *A Bolton Childhood*. (Manchester, NH: Manchester University Extra-Mural Department, 1973), 91-92.

<sup>67</sup> Arendt, *Denktagebuch*, I.1.4.

<sup>68</sup> *Ibid.*, XVI.3.373.

conditions of possibility for our immersion in the web of human relations, the necessary condition for the constitution of the political. It is thus the force of 'amor mundi' that animated Alice Foley's and many other women trade unionists' 'long years of humble toy'. But apart from the Arendtian understanding of love as a connecting thread in the web of human relations, love taken as 'the Platonic Eros' is a force that binds us to the totality of the world and brings forth the creativity of the universe, Whitehead has argued.<sup>69</sup> The perceptual awareness of this love was a feeling that emerged from Foley's experiences of a summer school in Wales, or rather to keep process philosophy as the philosophical underpinning of analysis, Foley emerged as a subject through the lived experiences of the Welsh summer school for workers: we emerged from the world and not the world from us, Whitehead has repeatedly reminded us, positing a notion of life as 'an ontology of becoming'.<sup>70</sup>

### *Of other histories*

In this paper I have looked in the relation between nature, education and history through the lenses of Whitehead's process philosophy. What I have argued is that challenging the bifurcation of nature opens up new vistas within which we can reconceptualize time/space relations and events in the histories of women's education. What underpins the challenge of the bifurcation of nature is the idea that historical analyses are always processes of approximation that should take seriously the deeply plural experience of nature, but should also consider the non-actualized potentialities of a different course of history, what Charles Renouvier first called 'uchronia'<sup>71</sup>, and is now more commonly known as alternate histories. As Didier Debaise has aptly put it, 'in order for the idea of another course of history to acquire any consistency it must lure or capture, the real worries, the effective feelings, that partially preexist them.'<sup>72</sup> It is such feelings, worries, dreams and disillusionments that I have tried to capture in writing genealogies of women workers' education.<sup>73</sup> In doing so I have kept raising the 'what if' question of 'uchronias': what if John Dewey's ideas had been seriously adopted by the US trade unions in devising the philosophies and directions of the movement for workers' education? What if the history of education had considered women workers' contribution to the cultural formations of modernity? What if summer schools for women in the industry had informed past and current policies for education for justice?

Here we can just start imagining the 'other histories' that could have unfolded and understand the idea that 'history is not only determined in the moment that it is made.'<sup>74</sup> In this light, we can also feel the need to intensify the study of historical events and occasions, such as the movement for women workers' education in my case, in the spirit of what Debaise has highlighted as 'the importance of intensification.'<sup>75</sup> Intensification of our understanding of past events are important in making sense of our actual worlds of the derisions that are

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<sup>69</sup> Alfred North Whitehead, *Adventures of Ideas* (New York: Free Press, 1967[1933]), 148.

<sup>70</sup> Whitehead, *Process and Reality*, 23.

<sup>71</sup> Charles, Renouvier, *Uchronie (L'Utopie dans l'histoire), esquisse historique apocryphe du développement de la civilisation européenne tel qu'il n'a pas été, tel qu'il aurait pu être* (Paris: Bureau de la Critique Philosophique, 1876).

<sup>72</sup> Debaise, *Nature as Event*, 85.

<sup>73</sup> See author

<sup>74</sup> *Ibid.*, 84.

<sup>75</sup> *Ibid.*

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currently happening in the course of the crude commodification of education or the monstrosity of the neo-liberal university for example. As Debaise has put it, 'these past conditionals', these 'could have beens' of uchronic speculations should be focused 'on the constitution of our actual world, a world in the making, with its hesitations, its latent bifurcations, its tendencies.'<sup>76</sup>

In this context the concept of nature in historical research and beyond is taken as a lure for feeling, loving and therefore understanding subjects and their relation to the world in a long durée of perpetual imaginings and becomings. Keeping to Whitehead's conceptual vocabulary, nature as a lure incites a change in the way we think and understand and allows glimpses to other possibilities, worlds still to come.

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<sup>76</sup> Ibid., 85.