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Experimenting in circles: Agfa, amateur cinema, and the art of R&D

Miriam De Rosa and Andrea Mariani

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Abstract

This article moves from small-gauge film technology manufacturing and experimental film practices to develop a twofold exploration of film and camera conceptually interlinked in a mutual cycle of experimentation. Italian filmmaker Ubaldo Magnaghi's city symphonies provide an illustrative example: active in the early 1930s as an independent filmmaker, between 1930 and 1933 he produced five films sponsored by Agfa, which was expanding its market in Italy. Magnaghi's experimental films were thought to stress the material resistance of cameras (an Agfa Movex 30) and the film stock (Agfa Isopan reverse). The article will shed light on the affordances offered to the filmmaker regarding the film stock's specificities and the camera involved in the manufacturing process. Such a virtuous cycle connecting manufacturing and creativity is metaphorically reinforced on the level of aesthetics in Magnaghi's film *Symphony of Life and Work* (1933), characterised by a reiterated circling camera movement. Inspired by this, we aim to craft a study that assembles the various components of the filmmaker's work in a rounded film experience, underlining the nature of small-gauge cinema as a non-neutral yet empowering practice able to create a complex room for critical analysis eliciting new ways of looking, problematising, and therefore thinking reality.

Keywords

experimental film; amateur cinema; film manufactory; Agfa; cinema industry

An enfant prodige: The films of Ubaldo Magnaghi

This article focuses on Ubaldo Magnaghi's *Symphony of Life and Work* (*Sinfonie della vita e del lavoro*, 1933), an avant-garde documentary shot in the centre of Milan and sponsored

by the film manufacturer Agfa to promote its new camera – the Agfa Movex 30, with an original vertical shape – and its reversal 16mm film stock: Isopan Agfa ISS 16mm.

In what follows, we will try to shed light on how the mutual influences between the political and industrial complex on the one hand and the cultural and creative elements on the other were negotiated, illuminating what we propose to term a *mutual cycle of experimentation* that led to the production of relevant yet unresearched experiments, such as Magnaghi's films. To do so, we will focus on specific circular camera movements appearing in *Symphony of Life and Work* (1933) by excavating its epistemological implications. However, it is necessary to first provide a historical contextualisation of the Agfa sponsorship programme by looking at the promotion of the 16mm film by Agfa in Italy in the interwar period and its relationship with the fascist regime. This will allow us to question the limits of the institutionalisation of a given technological medium and will hopefully enable us to better understand how ideological and political issues can be excavated into formatting practices, touching not only upon processes of institutional decision-making but also on the experimental uses of substandard film technology. The reconstruction of these processes will be complemented by an in-depth analysis of a film text, which will highlight some tropes in Magnaghi's cinematographic style that we claim are intertwined with the Agfa Movex 30 and the affordances of 16mm reversible film.[1]

This perspective implies a conception of the format not just as a technical term but as a complex cultural object and a critical node.[2] More specifically, by researching the limits of institutionalisation, we intend to question the power relations inscribed into the process of formatting the film material, as well as forms of experimental and creative praxis that pushed the very limits of the film format itself. In this view, we will discuss formatting procedures that disclose different cultural techniques[3] and different degrees of material distinction in the shaping of the film stocks and in the formation of the image and its material conditions. This offers the opportunity to open up questions about the boundaries of the formatting processes, researching the impact of experimental uses of film materiality in the industrial shaping of film technology.

As Mariani and Schneider put it, in a recent publication about the establishment of Agfa in Italy, 'on the one hand, formatting aligned to an institutional trajectory, where Agfa, through its Italian subsidiary, put in place a set of technological regulations and strategic political-industrial moves meant to take advantage from their presence in Italy',[4] by reinforcing their political proximity with Benito Mussolini and supporting the international debate about the standardisation of 16mm in Europe[5] for amateur, educational, and instructional uses. On the other hand, formatting could reveal forms of inner resistance to

institutional power when Agfa itself decided to involve independent filmmakers to stress-test and promote their film stocks, sustaining forms of DIY practices for printing and developing the film material, inviting them to push the material limits of the format to its edge, and making them part – de facto – of a new stage of formatting. Though these forms of external collaboration were favoured as a marketing technique, they resulted in a space of unpredictable experimental praxis, where these took an active part in the formatting process, and where creative impulses went far beyond the industrial intent of the company.

In 1925 Agfa opens its foreign branch – the Italian Agfa-Foto, then renamed ‘S.A. Prodotti Fotografici Agfa’ – in Italy, first in Turin in 1925, and soon after moved its headquarters to Milan. It therefore began an aggressive geopolitical and economic campaign in Italy, opening local branches in the cities of Mestre, Rome, Turin, Florence, Naples, and Catania. The substandard film sector of the film stock market in Italy was a big target, although in the early 1930s Agfa struggled to gain a position. In 1932 Kodak seemed to prevail in the amateur film equipment sale market, and Agfa-Milan suffered from very high competition.[6]

A vital marketing strategy coincided with a grassroots campaign to collaborate with individual semi-professional or professional filmmakers.[7] In this context, Agfa Milan had been involving independent filmmakers to stress-test their technology and promote the technical possibilities of their stocks and film equipment since at least 1932. Ubaldo Magnaghi’s short films (from the Milan Cine-club[8]) emerge from this kind of collaboration. Magnaghi became famous after his short films were awarded at the Venice Film Festival in 1934 and 1936: respectively the tryptic *Symphonies* (*Sinfonie*, 1933), which we will discuss, and *The Case of Mr. Valdemar* (*Il Caso Valdemar*, 1936), an independent horror film adapted from Edgar Allan Poe. He was not an Agfa employee, however, he was an assiduous collaborator of the house organ *Note Fotografiche*, where some frames of his films were printed and praised.

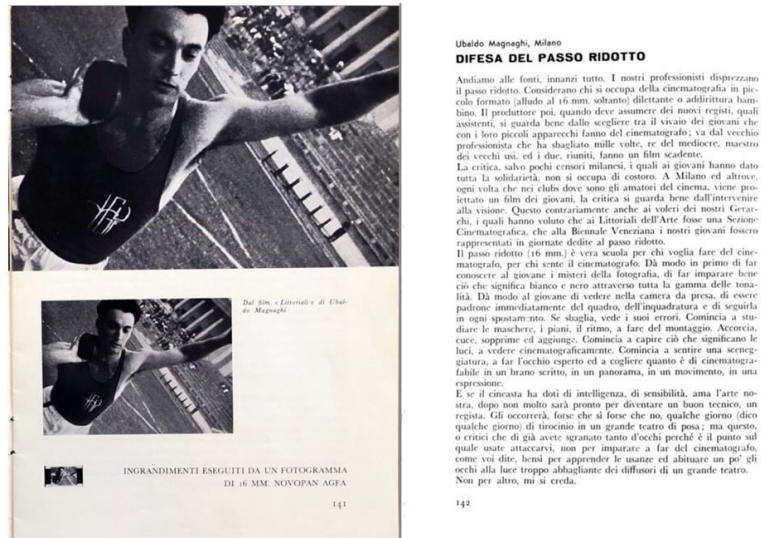


Fig. 1: Magnaghi's article and frame from *Littoriali*, a lost film by him, in *Note fotografiche*, November 1934.



Fig. 2: Ubaldo Magnaghi, *Mediolanum*, film credits, 1933.

Magnaghi produced at least five films sponsored by Agfa, whose equipment was declared in the opening or ending credits. *Mediolanum* is the first of a series of documentaries on Italian art and landscape commissioned by Agfa. *Mediolanum* follows *Steel-plants* (Fonderie d'acciaio, 1932), realised with the collaboration of Attila Camisa and now lost; then *Symphonies of Life and Work* (Sinfonie del lavoro e della vita, 1933), *Ten Synthesis* (Dieci sintesi, 1934) – which were announced in 1933[9] – and *Aluminium* (1934), supposedly lost: a symphonic triptych that gained great success at the 1934 Venice Film Festival, where it was awarded the Monogram Prize.[10] Scholar Cristina Galstaldi includes two more films in this list: *Laguna* (Lagoon, 1934) and *Sailing Games – Blacks and Whites from Chioggia* (Giochi di vela – Bianchi e neri ghioggioti, 1936). We mentioned five documentaries because, in fact, *Symphonies of Life and Work*, *Ten Synthesis*, and *Aluminium*, even if produced as three separate films, were assembled and distributed (and presented at the Venice Film Festival in 1934) as a single edited film under the unique title of *Symphonies*. [11] As a matter of fact, *Mediolanum*, *Symphonies of Life and Work*, and *Ten Synthesis* have a very similar structure. The former is a documentary about the historic centre of Milan; it shows sequences that seamlessly proceed by juxtaposition, without captions, for a total duration of just over thirty minutes. The entire narrative is dominated by the materiality of the urban space, the monumentality and the details of its artistic symbols. Human figures are almost absent or totally overshadowed by the architectural space. Moreover, *Symphonies of Work and Life* and *Ten Synthesis* present a series of brief thematic sequences (in *Ten Syntheses*, the fragments are often very short) where some fragments of *Mediolanum* are reassembled. While *Mediolanum* has been preserved on two reels, a reconstruction of *Symphonies of Work and Life* and *Ten Synthesis* was necessary – the restoration of these fragments was initiated on behalf of the Cineteca di Milano in 2014 at La Camera Ottica, Film and Video Restoration of the University of Udine. In fact, *Symphonies of Work and Life* and *Ten Synthesis* were united in the same reel and sometimes dispersed in small fragments in separate small reels.

On top of seven main sections that we will analyse below, some additional fragments were identified and included into the restored version: 'The work' and 'The seasons'. Even if it is hard to correctly reconstruct the original order of the sequences in *Symphonies of Work and Life*, it seems the most complete of Magnaghi's films by far. *Ten Synthesis* is more incomplete and presents sequences that include numbers in the titles: '3° Old Med', '4° The Lake', '5° The Saint', '6° Cathedral', '7° Nightmare (Still Life)', '8° Portraits', '9° The Sky', '10° Earth'. The first two sequences are completely lost.[12]

Interestingly, all these films shared a typical stylistic feature in the circular motive of the camera moving around objects: recurring in all these films (particularly in *Mediolanum*,

Symphonies of Life and Work, and *Ten Synthesis*) to such an extent that the very same frames are retrievable in all of them. Namely, the sequences '4° The Lake', '5° The Saint', and '6° Cathedral' from *Ten Synthesis* and 'Good and evil' from *Symphonies of Life and Work* show the same footage as *Mediolanum*. This is not just confirming the strong stylistic affinities among these experimental films, but the fact that this footage concerning the city of Milan was probably shot during the same period in 1933, and later assembled and organised in four different films that occasionally were re-assembled and re-edited: this is the case of *Symphonies of Life and Work*, *Ten Synthesis*, and *Aluminium*, in the edition of *Synthesis* presented at the Venice Film Festival in 1934.

Furthermore, *Symphonies of Life and Work* explicitly echoes Walter Ruttmann's work on Berlin. This is not incidental insofar as Ruttmann was very close to Magnaghi at that time: he had moved to Italy in 1932 to shoot *Steel* (*Acciaio*), a film financed by the Italian studio Cines, and based on a subject written by novelist Luigi Pirandello, depicting a steel plant in the small city of Terni. *Acciaio* manifestly inspired Magnaghi's short documentary film titled, not by chance, *Steel-plants* (*Fonderie d'acciaio*), the first one shot using Agfa equipment in 1932. *Symphonies of Life and Work* then, not surprisingly, confirms a strong affinity with the German filmmaker and with his modes of production too, since Ruttmann combined industrial sponsorship programs and experimental filmmaking[13] in a virtuous and circular dynamics of mutual benefit – a mutual cycle of experimentation, as we contend, that binds together industrial interests and creative sparks.

Magnaghi's film's proximity with the international avant-garde scene was widely recognised. *Mediolanum*, shot before *Symphonies of Life and Work*, sponsored by Agfa and devoted to the city of Milan, circulated among the early Italian cine-clubs in a screening program that paired it with *Ballet Mécanique* by Ferdinand Léger and *L'Etoile de mer* by Man Ray, forming a triptych. This is a point worth highlighting, since the circular motif in European avant-garde films of that time – specifically in Man Ray and Marcel Duchamp's *Rotative Plaque de verre* (1920) and *Rotative demi sphère* (1925), but more famously in Duchamp's *Anemic Cinema* – stressed the emergence of film as an *ars mecanica*, where '[t]he film no longer appears as an extension of the photographic in terms of movement and time, but from the circular mechanical movement in terms of the visible'.[14]

Symphonies of Life and Work can appear as a canonical avant-garde film, inspired by a musical symphonic element that betrays clear influences (beside Ruttmann, Joris Ivens is a remarkable reference).[15] However, the most striking feature is the attempt of the director to stretch the physical limits of the technology he is employing, such as the frame

stability, the image resolution with exacerbated movement, the balance of light/shadows as well as the limit of visibility in highly contrasted or backlight scenes, extra-close ups, etc. To what extent are these creative praxis and formal experiments participating in a formatting process? How do they contribute to the company's R&D processes? How can they be related to the institutional efforts displayed by the company? It is clear that these kinds of creative interventions in the materiality of the film implies the use of a film stock that has been already formatted: they are asked to use film stock available in the market, and thus they do not participate in the efforts to make some physical dimensions of the stock dominant in the market, nor to make a film format a new standard. Nevertheless, the way they address the limits of the materiality of film allows for an exploration of the boundaries of its physical dimensions to create a new grade of technical 'improvability' of the format by way of their DIY praxis. This makes them the de facto initiators and promoters of a sort of extendable stage of 'research & development' while stressing the porous limits of the medium and their role in its material determination and distinction.

A closer look at Magnaghi's *Symphony of Life and Work* can illuminate these mechanisms, as well as the connection that can be drawn between experimental filmmaking and the way the filmic device is thought of based on the former. At a deeper level, in effect, it is possible to observe how the mutual cycle of experimentation that we are studying bridges the industrial and the creative elements, but on top of this also shows an implicit epistemological process after which practice informs the way we conceive of film, and of the concept of 'experimental' per se.

The film analysis that follows attempts to take into account these two conceptual layers retrievable in between the lines of Magnaghi's work. The first layer is an epistemological one that moves from the stylistic feature of the films and traces them back to the operations of the filmmaker, as well as to the affordances of the device – by which we mean, the assemblage of 16mm film stock and Movex 30 camera. The point here is that these elements betray a way of thinking film that becomes shared and progressively turned into a conventional form of knowledge. Layer number two, which in a way starts where the former ends, moves backwards, seeking to reflect on what experimental means within the set of practices activated by Magnaghi and how this defines cinematic knowledge. Unorthodox uses, challenging uses for both the film strip and the camera, failures, misuses, and tests all belong to this experimental attitude, often tinkering, not always aware of its full potential, and most of the time rooted in tacit knowledge.[16]

Assuming a methodological position that adheres to the film and builds up from the occurrences to be found therein, it looks like one of the most significant features emerging

from Magnaghi's *Symphony* are a series of characteristic circles that we can recognise throughout. Therefore, we find it relevant to dwell on this very feature, contending that it is not simply a peculiar stylistic trope but, more importantly for the points we are trying to make, the circles metaphorically allude to the cycle connecting industrial and creative elements. At the same time, the circles work as markers of a t(h)inking attitude, highlighting an open-minded and experimental way of employing both the camera and the film stock, which ultimately impacts in relevant ways on how the filmic device is construed as a concept.[17]

Put differently, experimental practice has a heuristic value that, in the case of substandard formats, and Ubaldo Magnaghi's work specifically, can illuminate the implications and effects between creative choices and those technical features of the film material determined by industrial strategies. At the same time, however, if we flip the perspective and consider how relevant Magnaghi's experience was as an input to grasp better the nature and challenges enabled by the unorthodox use of the Agfa Movex 30, such a contribution may shed new light on the very concept of 'experimental' as a complex multi-layered category. In effect, Magnaghi's path to experimental film describes a set of skills, crosscutting various genres well beyond the exclusive remit of experimental, abstract, or avant-garde cinema, eliciting a reflection that exceeds those films which were proposed alongside *Symphony*, such as Léger's and Man Ray's. With Magnaghi, 'experimental' is in fact a term that inevitably calls back to a reconsideration of the materiality of the film which is, in turn, deployed in its affordances throughout the filming gesture.

Circles as a stylistic trope

We know from house organs[18] that unprecedented technical gestures of amateur filmmakers were supposed to inform adjustments in the design of the apparatus, leading to a sort of 'formatting' impulse. As we explained above, Agfa encouraged amateurs to tinker around with developing and printing, so as to test and eventually optimise their black-and-white film. Magnaghi is no exception to this, with a rather important contribution when it comes to observations about the chemical elements of the film stock and about stretching its physical properties, for example, pushing the technology with extreme light contrasts, backlight, and backlit surfaces and subjects.[19] This was to the great interest of Agfa, which implemented changes according to this and similar experiences. While the images resulting from Magnaghi's trials and 'misuses' are interspersed across his whole production, we would like to argue that *Symphonies of Work and Life* is where the author's experimental attitude reaches high peaks of refinement.

The film is divided into seven themed sections of variable length: 'The road', 'The milk', 'The flesh', 'Death', 'Good and evil', 'Life', 'The siesta'. Rather self-explanatory, especially for the first three sections, these chapters illustrate the urban environment in Milan, the dairy industry, and work in a slaughterhouse in the city, to then move on to a domestic interior where we follow an old lady knitting before seeing household objects and eventually faces and body parts in section four; then children, women, and men singing and playing piano, before getting a close-up on hands and paper garlands in section five; and, conceptually closing with section six, which offers a resumé of the previous ones, we have excerpts and images seamlessly following each other in a chain of events, to imply that life is made up of everything else we have been seeing up to that point. The last section shows leisure activities with the technical peculiarity, in typical Magnaghi style, of a few excerpts edited upside down.

There are a few instances where Magnaghi's experiments with the device, especially in the passages where we see the variation from light to shadow and vice versa, produces interesting effects. They are useful to observe because the filmmaker employs them to enhance the dramatic tone of the images, and at the same time they are also utterly useful to test the material quality of the film stock, by playing with backlight, the light setting, and the shutter. Further, as anticipated above, the most peculiar feature of Magnaghi's film is the characteristic circle motif, which we suggest serves both as a stylistic trope and a 'personal mannerism' derived from the director's own *gesture of filming*.

In his reflection on gesture, Vilém Flusser notably addresses the 'gesture of filming':

For historical people [...], history can be changed only from the inside, by engaging with it. That is why the Romans called history *res gestae*, 'thing done'. And historical telling is itself such an engagement, a thing done. But in the filmic gesture, history is made from above and beyond itself. It is therefore not 'things done' but 'things in progress'. [...] the filmic gesture is far more concrete [...], for its tool is the filmstrip and not the concept, and its works are not a discourse of ideas but of shadows thrown on a screen.[20]

While the author uses cinema as a metaphor for understanding the ongoingness and materiality of history, we suggest that Flusser's point serves also as a reminder that film is a concrete matter. This describes Magnaghi's ongoing formal endeavour, emphasising its profound relationship with the physicality of film. Also, in line with the idea that cinema is not a 'thing done' but is rather a 'thing in progress', Flusser's excerpt is exemplified by Magnaghi's interest in the techniques of cinema as something that is not a given but instead that leaves room for experiment – an experiment which eventually fed in his technical research, as it is noted in his contributions to *Note Fotografiche*. Figuratively, but also quite

pragmatically, the circles stand for this search. This is probably why there is no fixed nor unique strategy to create them.

Analysing the film, we propose that it is possible to identify at least three ways in which this outcome is achieved. First and simplest, via camera movements, of which the opening of the street section of *Symphonies* is a case in point (Fig. 3): the camera is tilted so as to frame the scene from bottom to top, and street lights, a clock, and advertising billboards are filmed moving the camera clockwise. The final sequence comes back to the same camera movement, with a circular motion that hovers on what looks like a garland hanging on a religious wooden catafalque. The exact same camera movement comes about across the other sections of the film too. It is also worth mentioning how such a camera movement is used as a linguistic motif to bridge different sections: at the end of section three the characteristic going in rounds takes the viewers from the slaughterhouse to the peaceful home of an elderly person, whose face is inspected with ascendant, descendent, and circular movements. This sequence is almost certainly the outcome of previously attempted combinations of light setting and camera movements that the author piloted in a set of tests, where we can clearly see him giving a go to the circular motion, eventually perfected in *Symphonies*, as well as in *The Case of Mr. Valdemar* (1936). In the tests we see Magnaghi's technical and stylistic research process. At first, he experiments by filming the subjects along a 180-degree tilted axis; then he mobilises this axis with a turning gesture of the camera that will become increasingly apparent and exacerbated, as we can see in the film we are discussing.

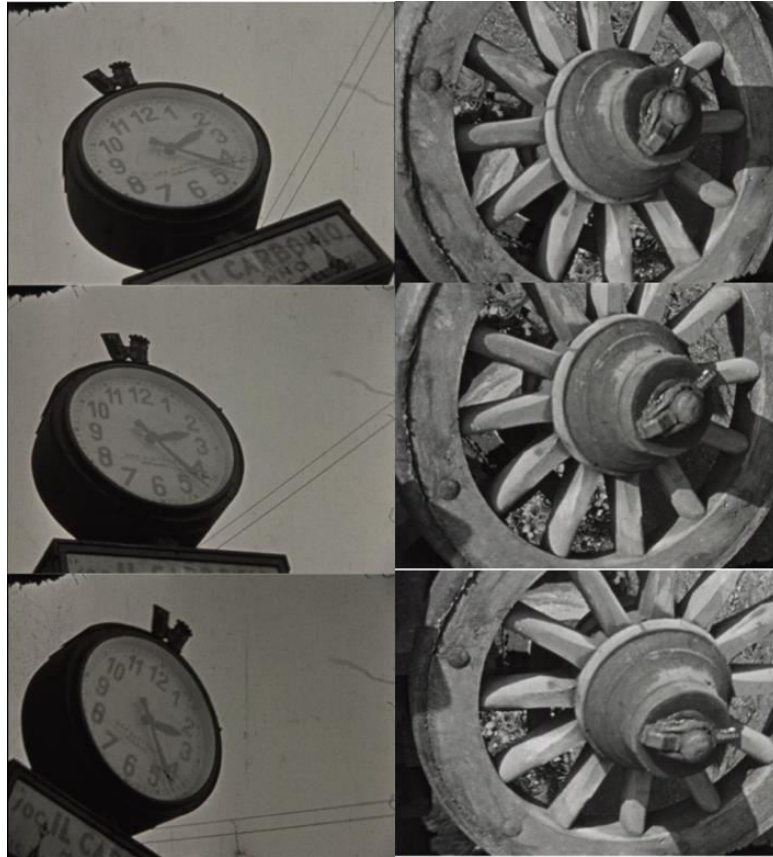


Fig. 3: *Symphonies of Work and Life*, Ubaldo Magnaghi, 1934, stills from the film.

At the same time, *Symphonies* is rich in evocative visuals that convey the sense of circling through a depicted gesture or mechanical operation that either goes in circles or alludes to a round shape, relying also on the curvy form of some filmed items. This is the second strategy we shall identify. In the street section, for example, we see this second strategy very clearly, as the wheel of a knife grinder spins in circles; similarly, the sequence shot from a streetcar shows car and bicycle wheels spinning, while the driver of the tram operates a handle moving in a round trajectory. This suggests that when the shape of the framed objects is round, a visual echo effect is produced as if the camera would follow along the form of the objects, rehearsing the curve that defines the items. When the shape is not circular, instead, the gestures they enable and require to perform in order to be used,

or the operations that characterise them when they are activated, recreate a circular movement that contributes to producing a consistent sense around this shape. In this case, we have to do with technical artefacts that, in other words, either imply a circular gesture or function in a way that enhances circularity. Examples of the former are the hats hanging in a shop window or the display of clocks neatly ordered in tiers in section one; these are both circular in shape and hinting at an extra sense of circularity supported by the implicit motion of minute and second hands. Examples of the latter are the grinder in section four or the milk bottling in segment two. The grinder is operated by a hand entering the frame to turn the handle, with human gestures performing after the affordances of the technical tool and picking up the gesture of filming in rounds. The bottling, instead, alludes to circularity as in a chain of actions, such as that of assembly lines where worker operations are not necessarily a round gesturing, however are inserted in a broader context, one where the gesture of machines (technical artefacts) recreates a circular movement across the factory that contributes to creating a consistent sense of roundness (Fig 4). The assembly line in the milk factory expands the suggestion and logically connects the round camera movement to the world of labour, where chained operations follow one another and feed a broader production process, ultimately hinting at the circulation of goods/capital, and possibly opening up critical reflections on the production of the film stock itself.[21]

At the opposite spectrum of the assembly line, and yet, we suggest, still contributing in more evocative ways to strengthening the sense of circling and going in rounds, are a set of more poetic and ephemeral images that adopt a different register but feed the same imagery nonetheless. These include the raindrops falling on the *Navigli's* water as a woman does her laundry, which appears in section one: the typical circles expanding on the surface of the canal is reminiscent of the shape we are discussing; the same goes for the merry-go-rounds in section six, with its multiple and opposite layers of circularity. Opposed to the speed and rationality of the factory is also the paper garland that closes section five: following up images of hands holding each other, the garland is a clear continuation of that motif, just more fragile, insofar as paper figurines replace actual hands linked with one another, again in a chain that produces a round effect.

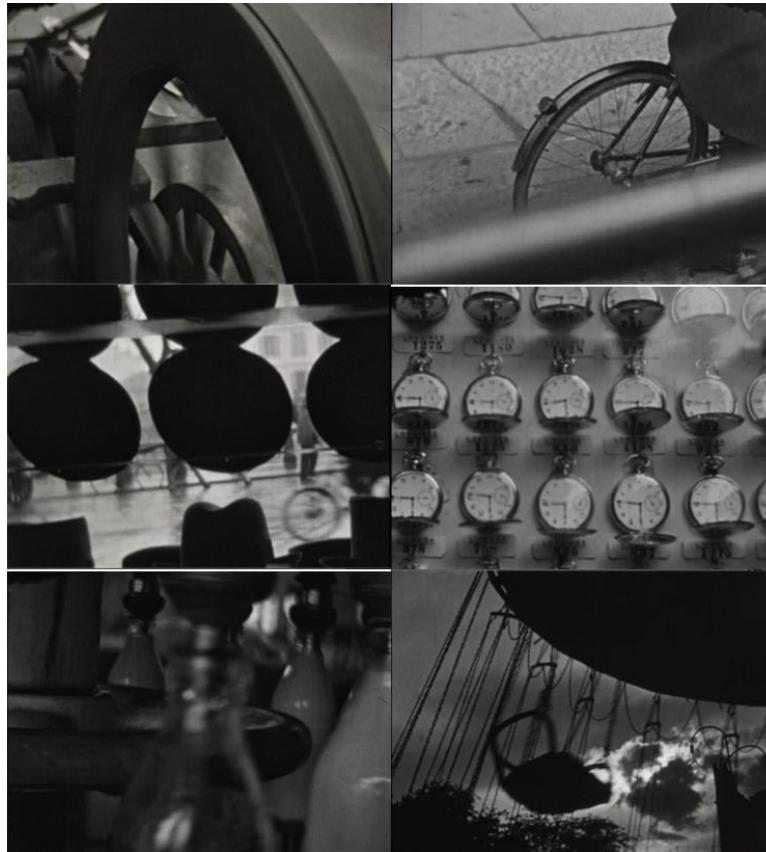


Fig. 4: *Symphonies of Work and Life*, Ubaldo Magnaghi, 1934, stills from the film.

Finally, strategy number three can be retrieved in the film as the circle motif is produced by technical arrangements proper in the postproduction of the film. Magnaghi designs a variety of creative solutions to achieve the circling motion we are scrutinising thanks to suture and editing methods. The last section of *Symphonies* titled 'life' is a case in point. This is composed of a selection of images from each of the previous sections, which are stitched together so as to create a non-linear summary of city streets, factories, and people. Specifically, the director goes back to the places and figures he has already presented, but this time he composes an alternate rhythm that becomes increasingly faster and proposes visual juxtapositions that pair apparently disjointed topics: the slaughterhouse / happy faces and hands playing the piano; cow slaughters / women's laughter; children's faces / the old woman; flowers / fire. These opposed images progressively become more and more

connected on the conceptual and metaphorical levels as the film proceeds towards the end: goods displayed in shop windows are paired with the image of an eye, presumably looking at them; a fist banging on a surface and a fairground with its attractions moving allude to the intensified perception and experience in the city that really reminds one of the modern metropolis.[22] The editing is structured in a *crescendo*, complemented by the above-mentioned stylistic strategies, with the rotation in circle of the camera becoming absolutely evident and explicit when the image of the eye appears on screen, or when the camera does not move in rounds, with the filmed objects going in circles, the merry-go-rounds of the amusement park being an obvious example of this.

In sum, it is possible to retrieve the circle motif both in the form of plain camera movements and as an impression created by the skilful use of evocative visuals, as well as of their technical arrangement – circles that describe, capture, or allude to operations and gestures. Such circles suggest that, as in life, acquiring a ‘best practice’ is not linear at all, it is instead an articulated process that may shape after twists and turns, as much as the understanding of the filmic device depends on its technical components, the affordances they offer to the users, and the creativity that users themselves put into their practice. *Symphonies* offers us enough material to argue that Magnaghi embraces creativity, engaging with a process of experimentation which emphasises the operations enabled by the Agfa Movex 30 and the 16mm reversible film stock, as well as those gestures that challenge their design and prescribed functionalities. In this sense, we would like to posit that the circles are interesting to observe insofar as their emergence stands for the formalisation of a new way of thinking the filmic device, a way that enables achieving results too difficult (if not technically impossible) to pursue earlier. Technically speaking, the circling gestures are made possible by the light weight of the camera, which allows for agile movements, while the resulting image is optimised through a process of testing aimed at checking the rendering of the images themselves in combination with a variety of light conditions and exacerbated motion that still enables a reduced out-of-focus effect and thus a good enough definition. In other words, the nature of the small-gauge film dispositif is made apparent as an assemblage of heterogeneous, spatialised, experiential features by a set of operations performed by Magnaghi that are not the ‘standard’ ones; conversely, they expand the array of possibilities available when it comes to use the Agfa Movex 30.

While not standard, the historical reconstruction opening this reflection hopefully made clear that this expansion of uses is surely experimental but not ‘subversive’, given that Agfa purposefully involved amateur filmmakers in the R&D process. Hence, Magnaghi’s inventive, unorthodox, and creative take is not seen as improper but rather as a significant and strategic resource. Putting the institutional point of view aside, however, what is really

interesting here is the author's own perspective: he conceives of his device in a flexible, dynamic way, and this fact, albeit very likely implicit, impacts on the way in which this is thought of. This mode of thinking the dispositif differently is based on the way it is used, making for an excellent example of *thinkering*.^[23] Also, it highlights the relationship between the emergence of a filmic symbolic form and its cinematic formalisation as an acquired feature of the medium: as Geoghegan puts it, '[r]ather than starting with an already-organized technology, research on cultural techniques commences with an inchoate mixture of techniques, practices, instruments, and institutional procedures that give rise to a technological set-up'.^[24] *Symphonies* is Magnaghi's technological set-up made visible. Consequently, the epistemological potential of experimental practice emerges clearly.

The nature of this experimenting vastly relies upon the affordances of the device and its material qualities, but also on the flexibility of the 'tacit knowledge' both imbued in the material components of the device itself, and constituting Magnaghi's implicit skillset. Picking from this unspoken repertoire, and refining part of it, further knowledge builds up by doing, testing, stretching the conventions of the time, within that virtuous *cycle of experimentation* that connects the strategic attitude of the industry with the creative approach of the filmmaker. The outcomes of this are linguistic tropes that ultimately enable the creation of a fine personal poetics. In this sense, what is in progress through Magnaghi's gesture of filming, then, is most definitely a concrete action, and yet alongside it but not necessarily in line with Flusser, the concept and indeed a discourse of ideas derived from the ways 'shadows [are] thrown on a screen'.

Circles as markers of thinkering

In this view, Magnaghi's circles cease to be simple stylistic tropes and become markers of thinkering. They are the emerged form of his implicit skillset, a skillset that is in fact open enough to be integrated, amended, perfected with practice. Following on this trajectory, which describes the second layer we mentioned above, some failure excerpts shot by the author may provide further food for thought. First, we shall specify that this footage was found among cuts belonging to Ubaldo Magnaghi's *Symphonies* at the Cineteca Italiana, labelled as 'Tagli-Mediolanum-Stagioni' (Cuts-Mediolanum-The Seasons). In particular, fragments from 'The Seasons' supposedly belong to the homonymous sequence in the *Symphonies of Work and Life*. However, they could also be interpreted as a work per se, a work in progress – a new symphonic opus? – that was never realised.

Defining this footage as a 'failure' is thus not our own way to question the artistic quality of these images: Magnaghi simply decided to label them as such, to take them out of the films they were meant to be edited in, presumably due to a better outcome achieved in other footage. The hinted circular camera movement in the sequence taken out from the film *Mediolanum*, as well as the darkness characterising the last excerpt of the 'seasons' section taken out from *Symphonies*, then, become the author's room for experiment: in his attempt to think film, he exercises a kind of knowledge that lies within the gesture of filming he performs. Such a gesture is the locus where the intangibility of knowledge and the concrete nature of film find their point of encounter. In effect,

[t]he specific assemblage of rules governing a particular operation [...] does not materialize in theoretical discourse, but in the operator's succession of gestures and choice of tools. The *correct* execution of the operation appears as the manifestation of the knowledge contained within the technicity of that operation, within the structure of the machines [as much as in] the precision of the gestures. The technical process realizes the implicit conceptual structures inscribed within the operation.[25]

We argue that these technical processes and conceptual structures precisely define Magnaghi's manner of 'being experimental'. A certain school of thought sees the set of 'implicit conceptual structures'[26] as archived in machines, leaving not much agency to the user. While the affordances of the device's material components indeed play a decisive role, Magnaghi's work shows how these *guide* but at the same time *are also guided* by a human creative intervention, which can sometimes challenge the internal coherence of the machine. Precisely this mutual influence informs what we term the cycle of experimentation.

In Magnaghi, then, the filming gesture emerges as a tacit form of expertise that is a symptom of a technical know-how, which is constantly tested and implemented, reframed and gauged, most of the time without a discursive element examining that 'a technical gesture is done in a certain way, without anyone having explained, formulated, verbalized, why and how'.[27] However, from these testing and continued (often unorthodox) practices, a small-gauge discourse has indeed taken shape. *Note Fotografiche* is the territory where Magnaghi's seeds were planted and eventually raised. Following the filmmaker, we can find a well-informed knowledge of both the film material and the device.

Magnaghi's experimentalism invites us to see how users are also craftsmen, and his work underscores the interdependence and intertwined nature of an artisanal and a creative element as both somewhat comprised in the *dispositif*. Further, it calls for an acknowledgement of the material elements composing the *dispositif*, conceived as an assemblage of camera and film stock – that is, entailing the material film base, the technical

element linked to that, and the agency activating as well as actualising them in a specific space and time.

Looking at the practice of amateur filmmakers like Magnaghi serves as a reminder that experimental cinema is a fruitful locus of research on both artistic and pragmatic levels, whereby technical expertise (i.e. the users' know-how) and the affordances typical of the dispositif equally contribute to write a procedural 'hands on history'[28] that brings in non-institutionalised film practices such as those emerging within film clubs (as we previously indicated, Magnaghi was an active member of the Milan film club). With the kind of experimentalism we see in *Symphonies*, to take one configuration of this amongst many, we can identify the insistence on the circle shape that we analysed not only as a 'platform for undoing and reimagining media history',[29] but also that it feeds into the knowledge of the medium, demonstrating its permeability, its capacity to defy its own limits, to constantly reconfigure and consequently challenge the very concept of it. Agfa was clever enough to acknowledge and strategically absorb this experimental potential into an attempted institutionalisation of its product, without flattening the creative sparks.

In a passage from *Malerei u. Zeit* devoted to describing the technology-informed concept of time typical of urban life, Walter Ruttmann refers to a specific shape that exemplifies this: it is the 'time-based physiognomy of the curve'. This passage is cited at length in Thomas Elsaesser's *Film History as Media Archaeology*, and we find an exciting response between the curve in Ruttmann's take on the city and Magnaghi's camera going in rounds in his own city symphony. What is more relevant, however, is that Ruttmann proposes this formulation to attend to the dynamic nature of the city and to explain how the temporality characterising it is fluid and flowing, instead of composed of a series of occurrences in a dot-like manner: 'It is the time-based physiognomy of the curve caught in a continual process of becoming, and not the rigid contiguity of the isolated points that must be the object of our efforts.'[30] Magnaghi's experimentalism, with his reiterated circles, elicits the emergence of a dispositif that follows the physiognomy of the curve insofar as it is an open configuration, subject to a continual process of becoming.

Conclusions

To conclude, in this article we tried to embrace Ruttmann's invitation to make the *continual process of becoming* to be found in a film our object of research. While this sample will hopefully be expanded by further research, we took Ubaldo Magnaghi's work as our point of access along this journey, because we believe it offers significant examples to discuss small-gauge film practice as an object of inquiry that not only allows for a historical

reconstruction that pairs history and the study of industrial processes, but also for an exploration of the tension that we feel is (very productively) endowed within the notion of the 'experimental'. This hopefully showed the importance of moving across the space between the experiments induced by artistic expression and that of industrial innovation.

This is a tension that we proposed to call a 'mutual cycle of experimentation', and that also pertains to both tangibility and ephemerality. The former clearly characterises the film stock as something that triggers the amateur's – according to Vivian Sobchack – 'passion for the material', linking them with the physical component of the device, as well as, eventually, with the spectator and the world.[31] The intangible element, instead, is more related to the creative sphere, and it is instead proper to the performative operability, the gestural expertise, and the tacit knowledge that is imbued in the filmmaking practice. We hope to add our own *passion for the material* to Magnaghi's, in search for more room to reflect on his work.

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Notes

- [1] This article has been conceived jointly by both authors within the collaborative project PRIN2022 FilmBaseMatters: A Material Approach to the History of Small-gauge Film in Italy (project id. H53D23006770006 PI Andrea Mariani), funded by UE-PNRR of the Italian Ministry of University Research. The project is developed by the University of Udine, Ca' Foscari University of Venice, and IULM University in Milan. In particular, Mariani took care of the first section (titled 'Portrait of an enfant prodige'), and De Rosa wrote section two (titled 'Circles as a stylistic trope, Circles as markers of tinkering' and 'Conclusions').
- [2] Jancovic & Volmar & Schneider 2020.
- [3] Magnaghi's film allows us to discuss to which extent formatting can also be read as a cultural technique, meaning an operative procedure 'concerning the handling of things and symbols' (Kramer & Bredekamp [2008, p. 18]) and as a process of 'transition from non-distinction to distinction', as Siebert (2015, p. 14) put it. We are moving from the conviction that 'cultural techniques encompass both the moment of emergence of new symbolic systems as well as their formalization', as Bernard Geoghegan claimed (2013, p. 69).
- [4] Mariani & Scheider 2024. This article is meant to offer a complementary perspective, a follow-up, and a theoretical expansion to Mariani & Schneider's historical account.
- [5] Taillibert 1999.
- [6] Mariani & Scheider 2024.
- [7] A detailed reconstruction of this historical context and information about other independent filmmakers involved is in Mariani & Schneider 2024.
- [8] Anon. 1930.
- [9] Anon. 1933.
- [10] Minimo 1936, p. 44.
- [11] Gastaldi 2004, p. 95.
- [12] These films have been identified and preserved by the author at La Camera Ottica, Film and Video Restoration at the University of Udine. I thank Matteo Pavesi, Lorena Iori, and Marcello Seregni of the Fondazione Cineteca Italiana for their valuable collaboration and availability during the research.
- [13] Cowan 2014.

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- [14] Michaud 2016, p. 92: 'Le film n'apparaît plus alors comme une extension du photographique au mouvement et au temps, mais du mouvement mécanique circulaire au visible.' (translated by the authors)
- [15] Recent scholarship about the city symphonies phenomenon is in Jacobs & Hielscher & Kinik 2019.
- [16] Boguska et al. 2023.
- [17] Huhtamo 2010; Strauven 2019; Fickers & Van den Oever 2019; Huhtamo & Galili 2020.
- [18] Note Fotografiche, vol. x, no. 5 (1934), p. 141. Another house organ from Agfa, distributed in Italy is La rivista Agfa del negoziante (1935-1936).
- [19] Mariani & Schneider (2024) describe some of his techniques as follows: 'Magnaghi strives to measure the frame stability and the image resolution in a frenzied mobile shot on board of a tram coach, deliberately challenges the balance of lighting while shooting highly contrasted or even backlit scenes, chooses an extreme close-up detailing the texture of natural skin or a surface, and exalts the mobility and portability of its camera, for instance, in exuberant arcing pans.'
- [20] Flusser 2014, p. 89.
- [21] Lovejoy 2019.
- [22] The fast-paced rhythm is notably a feature of the metropolis taking shape at the turn of the twentieth century, which is caught and well represented in several city symphonies. On this aspect of the modern metropolis, please see Simmel 1971 (orig. in 1903); on its representation in city symphonies, refer to Walter Ruttmann's famous reflection in his *Malerei und Zeit*. A thorough documentation of Ruttmann's work and critical reflection is available in Jeanpaul Goergen, *Walter Ruttmann: Eine Dokumentation*, Berlin: Freunden der Deutschen Kinemathek, 1989.
- [23] Huhtamo 2010; Strauven 2019; Fickers & Van den Oever 2019.
- [24] Geoghegan 2013, pp. 69-70.
- [25] Turquety 2023 (in press).
- [26] See i.e. Simondon 2016.
- [27] Turquety 2023 (in press).
- [28] Hall & Ellis 2020.
- [29] Emerson 2019.
- [30] Ruttmann in Elsaesser 2016, p. 173.
- [31] Sobchack 2004; Mariani 2015.