

Abstraction and idealization: the case of Futurist and Constructivist single-piece overalls

‘There will come a time when paintings are no longer enough:
their immobility will be an anachronism with the vertiginous
movement of human life’,
Umberto Boccioni (1911).ⁱ

‘All artistic production is part of the everyday reality.
Indienne cloth is as much a product of artistic culture
as the picture’,
Osip Brik (1924).ⁱⁱ

In the experimental clothing designed, at the beginning of the twentieth century, by Futurist and Constructivist artists is possible to follow and progressively unfold the aspiration to a total renovation and re-organization of life, differently articulated by both movements.

In the post-WWI period, in times of economic crisis and political instability, Italian Futurism and Russian Constructivism delved in reinterpreting the modern condition, intervening in many areas of creativity (textiles, garments, furniture, propaganda, posters etc). The process of designing a ‘modern’ world included in fact any aspect of life, especially clothing, in which the body becomes a mobile vessel. The diversification of Futurist and Constructivist programs to all aspects of life was based on a conception of art endowed with a specific social role, and promoted a contamination of various artistic languages that has encouraged, among critics, comparisons to the Bauhaus.

Within the interval of just few years, Ernesto Thayaht in Italy (1919) and Varvara Stepanova, together with Alexander Rodchenko, in Russia (1922) designed very simple and linear overalls, adhering to the principles of practicality and comfort. These boiler suits differ in the function originally assigned to them, as well as in the destiny they had, and yet, it will be argued, represent a crucial moment in the utopian vision of a total re-organization of life or, to say it with the Futurists, of a compressive ‘reconstruction of the universe’.ⁱⁱⁱ

Numerous exhibitions have been dedicated through the decades to the innovative contributions within clothing formulated by Futurist artists, among whom Ernesto Thayaht in particular, and the Constructivists: *Modernism: Designing a New World* (V&A, 2006), *Per il sole e contro il sole: Thayaht e Ram. La tuta/Modelli per tessuti* (Galleria del Costume di Palazzo Pitti, Firenze, 2003), *Revolutionary Costume: Soviet Clothing and Textiles of the 1920s* (Ministero della Cultura dell'URSS and Associazione Italia-URSS, Pesaro, 1987), *Thayaht Futurista Irregolare* (Mart – Museum of Contemporary and Modern Art, Rovereto, 2005), *Rodchenko & Popova. Defining Constructivism* (Tate Modern, 2009) and many others.

The Futurist and Constructivist experimentations in clothing are indeed essential to highlight the role that dress played in the redefinition of art, the hierarchy between fine and decorative arts, and the blurring of these demarcations. With their interactions between different languages, the two movements questioned the boundaries that defined what art could be, and

presented clothing as an artistic expression that would finally be accessible to the masses. Important is then to examine the cultural contexts in which the two overalls were conceived, to understand their eventual points of convergences and dissimilarities.

In rethinking dress and appearance within the evolving urban space, the Futurists coloured clothing with a distinctive performative valence. In what became known as '*serate futuriste*' (Futurist soirées), many members of the movement appeared in public spaces, often theatres and galleries, with the intention of creating an impact on the audience through their dressed persona. Being representative of the 'new', dress had in fact to express a drastic rupture with the past, with tradition and the well-dressed bourgeoisie. The rhetoric of the 'new' and of the constant 'renewal', pervading Futurism, is manifest in its ideological as well as aesthetic agenda.^{iv} As remarked by Emily Braun, 'Futurist attitudes towards dress were woven into the movement's dominant ideological fabric'.^v

Giacomo Balla and Fortunato Depero originally introduced the idea of a Futurist clothing under the premise that fashion should follow the same principles as Futurist painting. In a series of vehement manifestoes, Futurists sought to 'elevate all attempts at originality, however daring, however violent'.^{vi} In general, early Futurist fashion remains a largely theoretical concept as very few designs were put into commercial production.^{vii} The small amount that was produced by Balla, Depero, and later Tullio Crali, fully adhered to the aims established in writing but was only worn by members already associated with the movement. The only exception, as it will be demonstrated, is Thayaht's *tuta*, the unisex and practical overall that influenced the course of Italian and international fashion.

In principle, the experiments of Futurist artists with dress and appearance are symptomatic of a complete re-interpretation of the meanings of fashion within the urban space. Rethought were the design, the cut and the chromatism of dress itself, which acquired a provoking and even nationalistic valence. As 'propagators of the new', the Futurists saw advances in clothing 'as a signifier for revolutionary modernism'.^{viii} The powerful rhetoric of the manifestoes written through the years depicts then a new landscape infused of dynamic force-lines, bright colours, and geometric 'splendor'.

Filippo Tommaso Marinetti, in the founding 'Manifesto del Futurismo' (Le Figaro 20 February 1909), launched the Futurist scream for a complete renewal that would condemn nostalgia – as well as museums, archaeology, libraries, academia, weakness - and celebrate movement, speed, war, patriotism, technological achievements. In May 1914, Balla publishes the 'Manifesto Futurista del Vestito da Uomo' ('The Male Futurist Clothing Manifesto'; in French 'Le Vêtement masculine futuriste'), rewritten, in September 1914, by Marinetti with the new title of 'Il Vestito Antineutrale' ('The Antineutral Suit'). Issued shortly after the outbreak of war, it was a vehicle for the Futurist propaganda sustaining the interventionist cause for Italy's entry in the war on the side of the Triple Entente. The Manifesto, featuring a design of the asymmetrical 'antineutral' suit, explicates all the characteristics of new Futurist clothing, which needs to be 'aggressive', asymmetrical, 'dynamic', 'muscular' in colour,^{ix} short-lived and constantly different through the usage of 'modificanti' (accessories and geometrical appliqués in fabric to creatively modify the garment). The opposition between past and future acquires here the nuance of a national battle between neutralists and interventionists, which becomes, in terms of style, an assault on timid conformity, static symmetry, boring patterns and bodily constrictions.^x

Similarly, for female fashion, an assault was launched against symmetry, convenience, luxury and nostalgia, in a perspective eager to link clothing to modernity, speed, and the machine. In the 'Manifesto of Futurist Women's Fashion'^{xi} signed in February 1920 by Vincenzo Fani (Volt), women's bodies and styles are to coincide with 'the most fascinating achievements of modern life'.^{xii} The movement appropriates indeed the marvels of technology to create a utopian Futurist universe, in which the emphasis is placed on new machines and modernity: a

universe in which there would be the 'woman airplane', the 'woman submarine' or the 'woman speedboat'. Without sacrificing, and rather enhancing the feminine curves and figure, the Futurists intend to 'glorify woman's flesh in a frenzy of spirals and triangles...so far as to sculpt woman's astral body with the chisel of an exasperated geometry'.^{xiii} The role of sexual difference is important in how Futurists envisage fashion, as clothing defends men from gender confusion and foreign influences, while the woman is the territory and material of man's desire and creative experimentation.^{xiv}

Within the Futurist program of renovating clothing, exceptional is the case of Thayaht (pseudonym adopted by Ernesto Michahelles) who is the only artist from the Futurist group to leave a significant contribution in fashion through his polyhedric activity and the collaboration, as designer and illustrator, with Madeleine Vionnet.^{xv} His sartorial invention, the '*tuta*', realized with his younger brother Ruggero Alfredo Michahelles (RAM), since its first appearance, in 1919, has deeply influenced everyday life as well as the course of fashion.

Raised in Florence, Thayaht and RAM were born from a wealthy family of Anglo-Saxons origins, infused with artistic genius, their grandfather being the Neoclassical American sculptor Hiram Powers (Woodstock, Vermont, USA 1805-1873 Florence, Italy).^{xvi} The cosmopolitan and refined young artists created in 1919 a 'universal', practical, elegant outfit whose democratic intentions were to permanently mould daily life.

Inspired by concepts of simplicity, functionality and reproducibility, the *tuta* was originally composed of straight lines forming a T shape, and even in the variant for women was deprived of any ornamentation, reflecting thus the Modernist aesthetics. Being adaptable to any day life and allowing a complete freedom of movement, it followed parameters of universality and uniformity, and responded to the 'new' need of favouring through clothing the 'vertiginous movement of human life'.^{xvii} As declared by Thayaht himself, the initial idea for the *tuta* was formulated in the torrid summer of 1919, in which the high prices of the fabrics and the economic crisis rendered impossible for the majority of the population to dismiss the old, grey and heavy garments, in favour of new and much fresher clothes. Sombre shades, antique and constricting garments were hence the norm. Having found some affordable pieces of bright cotton and hemp, Thayaht designed, with the help of RAM, a new garment that could be easily reproduced and worn by the masses. The *tuta* was initially adopted by Thayaht himself who used to wear it on ordinary, as well as on special, occasions as the several photographs and declarations of the time can testify. **[Image 1]** Subsequently, on 2 July 1920, the Florentine newspaper «La Nazione» supported the diffusion of the *tuta*, presenting to the public the reasons behind the creation of this 'synthetic'^{xviii} garment, and publishing the pattern with specific indications to reproduce the *tuta* at home. **[Images 2 - 3]** In 1920, Thayaht launches the slogan '*Tutti con la tuta*' ('Everybody in *tuta*'), **[Images 4 - 5 -6]** and a brochure of the same year^{xix} explains the origin of the name '*tuta*', which is specifically derived by the following characteristics:

- 1 – the *tuta* utilizes 'the whole piece of fabric' ('*tuta la stoffa*'), which measures 4,50 m x 0,70 m, and therefore adheres to the principle of economy in terms of material;
- 2 – 'the *tuta* is one piece of clothing' ('*tuta d'un pezzo*'). The straight cut overall features in fact minimal stitching, being an example of economy in terms of workmanship;
- 3 – it covers 'the whole person' ('*tuta la persona*'), and with only seven buttons and a simple belt is extremely easy to wear, thus promoting a considerable economy of time;
- 4 – in few weeks, it is written, 'all the people' ('*tuta la gente*') will wear the *tuta*, which has been invented so as to give the maximum comfort and minimum weight to the wearer, allowing a complete freedom of movement, without any waste of energies.

The Italian word *'tutta'*, meaning 'the whole, the entire', becomes in the brochure *'tuta'*, for the missing consonant 't' can be found in the T-shape of the garment itself. The idea of totality, contained in the word *'tutta'*, is unequivocally at the origin of the *tuta* that, in its materialization, refers to the totality of the fabric and of the wearer; at the same time, the idea of collectivity (the totality of the people) is introduced, and in turn evokes the same appearance of the people dressed in *tuta*. Unfolding the various layers of meaning, the three 't' in the word *'tuta'* could also hint at the concept of 'trinity', while at the same time the *t* echoes per se the Tau, a symbol for the absolute, the perfection of creation, the summary of everything in everything. The special attention given to the name is typical of Ernesto Michahelles who chose for himself a bifrontal palindrome as pseudonym. Thayaht, who studied esoteric art and theosophy, found then in the graphic expedient of the lost 'T' the baptizing act of his sartorial invention.

Since then, the neologism *'tuta'* has permanently entered the Italian vocabulary, meaning a garment (either overall or composed of a jacket and trousers) generally used to practice sports, or worn by workmen as mechanics, fabric workers, aviators, military officers etc.

The *tuta* created by Thayaht was suitable for everyone and every occasion: it was a 'universal' garment,^{xx} extremely simple to realize, and particularly cheap. If 1 metre of cotton or hemp cloth was sold at the price of circa 7 liras, the confection of the *tuta* required in total less than 50 liras, against the 100/150 liras usually necessary to buy an ordinary cotton garment.^{xxi} It contemplated different variants of colour, but excluded any decorative element, featuring just 4 pockets, 7 buttons on the front, and a simple collar. It could be worn with a belt, and no shirt underneath, being originally a summer outfit. The photos of the time show Thayaht with a walking stick, elegantly dressed in *tuta*, and wearing cutout Florentine sandals,^{xxii} which he invented, or T-bar 'Forte dei Marmi' sandals. **[Image 7]** Indeed, the *tuta* was a garment *tout court*, for everyday life as well as for special occasions. That the *tuta* was conceived for the masses is demonstrated by the specific choice of publication in «La Nazione», one of the first and most read newspapers of the times. Such a revolutionary invention, without being restricted to the elitarian world of haute couture, was destined to influence contemporary life, and therefore represents a significant step forwards in the direction of a democratization of fashion. Not by chance Thayaht is considered a precursor of numerous aspects of contemporary life and creativity.^{xxiii}

In Florence the *tuta* became very popular, and galas 'in *tuta*' were regularly organized by Florentine aristocratic families. In Rome and Milan, recalls historian Giovanna Uzzani, noblewomen, actresses and socialites, eager to adopt unusual looks, were among the first to buy and order the *tuta*.^{xxiv} Just few weeks after the publication of the first pattern by «La Nazione» more than one thousand of people adopted the *tuta*, which was appropriately considered the most provocative garment of the summer 1920.^{xxv} The feminine version was very similar to the masculine one: it came in solid colour, had four pockets on the front, a collar and a belt almost identical to those of the male *tuta*. The only difference resided in the fact that it featured no trousers but was a sort of sack dress. The *tuta* for women represented in fact a further simplification of the already very linear female clothing, and utilized no costly materials.^{xxvi} As vehemently argued by Thayaht and the other Futurists, true elegance has nothing to do with the quality of fabrics; hence women should abolish any vain and futile attention to exterior details, and rather concentrate on finding beauty in the absolute simplicity. Thayaht even invites women to abandon high heels, which are nothing else than an anti-aesthetic and unhealthy fiction to increase height.^{xxvii} Along the female and male *tuta*, in 1921 was created the *bituta*, that is, a *tuta* in two parts (a jacket and simplified trousers). This, says Thayaht, is even more practical than the *tuta* overall. Resulting from the experience generating the *tuta*, it represents in fact the perfected development of it.^{xxviii} In the photographs of the time, Thayaht wears the *bituta*, appearing extremely elegant.^{xxix} In

the photos, the *bituta*'s jacket is unstructured, light, and the look is generally unisex. Even though similar garments existed since the end of the XIX century, what Thayaht proposed was an innovative translation in cut, mode of production, and modifications in use through addition of accessories (a simple belt, a hat), or hems in different colours, as for the female *tuta*. The newness of Thayaht's sartorial experiment is manifest in comparison to the stiff formality of the contemporaneous menswear. The *tuta* reinterpreted in fact gender and masculinity in dress, opening up unexplored possibilities. In his creation, a prominent hygienic component is apparent: men and women wearing the *tuta* – the 'tutisti' and 'tutiste' – are to be pioneers of hygiene and art. The same ideals of practicality and economy (of material, workmanship, time, energy), as well as the simple geometry of the model, seem to be shared by the *prododezhda* designed few years later by Constructivist artists. Nevertheless, if this is conceived on the basis of a proletarian ideology, for which work constitutes the mode *par excellence* of living and being part of society, the overall by Thayaht needs to be contextualized within the Futurists proposals of renovating every aspect of modern life. The *tuta* responds indeed to those formulations, expressed in the several manifestoes, according to which fashion should promote practicality, action and dynamism. At the same time, its manifest simplicity seems to distance it from the principles that are at the basis of the eccentric Futurists clothing, and is rather close to the rationalization proposed by the Constructivists. In respect to the provoking experimentalism, in terms of shapes, materials and colours, promoted by the Futurist manifestoes, Thayaht develops an individual voice that escapes rigid labels and could be rather considered an 'unorthodox Futurist'.^{xxx} His peculiar versatility found expression in the fruitful collaboration with the Atelier Vionnet (1919-1924), for which he designed the logo, [Images 8 - 9] several models, and realized numerous advertising illustrations published in the «Gazette du Bon Ton». In this sense, Thayaht is the only artist among the Futurists to actively work within fashion, participating to its real productive processes, and represents a unique case of collaboration between Italian Futurism and French haute couture.^{xxxii}

At the time of its appearance, Thayaht's sartorial invention did not find an immediate industrial response, despite the artist's intentions to obtain a patent for the diffusion of the *tuta* in Europe, USA, Canada and South Africa. In the later 'Manifesto for the Transformation of Male Clothing' ('Manifesto per la Trasformazione dell'Abbigliamento Maschile'), written with RAM in 1932, Thayaht refers to the *tuta* as an example of innovation in clothing.^{xxxiii} Through the decades, the *tuta* in its innumerable variations has found ample diffusion in sportswear and work wear; it has deeply penetrated everyday life as well as fashion, where it has been interpreted by different designers as Emilio Pucci, Krizia, Marucelli, Capucci, Ken Scott, just to name a few of them.

As a piece of clothing that would reflect, in its shapes, the dynamism and speed of the modern times, Thayaht's *tuta* abolished 'obsolete' frills, and represented a 'synthetic' and 'hygienic' solution in a climate of economic crisis. Among the various Futurist creations, the *tuta* is the only one that has entered any level of society, constituting the most modern and lasting of them all, entering *de facto* ordinary language too. If a whole 'reconstruction of the universe' was not practicable, at least some forward-looking instances of Futurism's modernizing attitude, as the *tuta*, have transformed daily life, reaching that universality originally auspicated for them.

The urgency of a general re-organization of everyday life was expressed almost in the same years by Constructivist artists, who worked to realize their utopian project of a full transference of art into industrial production.

In the post-revolutionary Russia, applied arts became indeed the instrument to materialize the Soviet utopian ideals. Artists gave a programmatic formulation to their desire to 'reconstruct not only objects, but also the whole domestic way of life...both in its static and kinetic

forms'.^{xxxiii} Extremely simple geometric shapes, and complementary colours, soon became the trademark of the practical, hygienic clothes, designed by Constructivist artists, which had to suit the structures of the working life.

As a post-WWI development of Russian Futurism, Constructivism developed in 1920-1922 from a series of debates at INHUK, the Institute of Artistic Culture in Moscow (1920-1924), which culminated in the formulation of Productivist theory, propounded in particular by Osip Brik. The manifesto of Productivism demanded the end of the easel painting, and more generally of art for art's sake, in favor of an immediate integration of art, life and industrial production. In the article 'From easel-painting to the printed fabric' for the journal *LEF* (Left Front of the Arts),^{xxxiv} Brik argued: 'only those artists who have understood once and for all that work associated with production is not just one art-form among others but the only possible art-form, only they are in a position to find a solution to the problems of contemporary art'.^{xxxv}

The artistic production is now conceived in terms of consciousness of the production process itself, and the vehement '*V proizvodstvo!*' becomes the revolutionary motto of the Russian avant-garde.^{xxxvi} The organic relationship between art and industry, and the edification of life in its material forms, writes Boris Arvatov, is the practical program of the Constructivists.^{xxxvii} Born is then the idea of an art aiming at the restatement of new forms of life and social behaviour, an art that is in close connection with production and could reflect the structures of ordinary life (in Russian '*byt*'). This connection is based on the identity between the notion of 'art' and that of 'work', postulated by Productivism.^{xxxviii} In the post-revolutionary Russia, art progressively ceases to be an aesthetic category and is almost identified with the process of production. It is the refusal of an art springing from contemplation and from those notions of 'inspiration', 'genius' and 'creativity'. The slogans outlined by Alexander Rodchenko in 1921 indeed sound: 'CONSTRUCTION is the contemporary requirement for the ORGANIZATION and utilitarian use of *material*. A CONSTRUCTIVE LIFE IS THE ART OF THE FUTURE. ART *which has not entered life* will be numbered and handed over to the archaeological museum of ANTIQUITY'.^{xxxix}

Constructivists sharply distinguish between an art that pursues a pure aesthetic research from an art that, on the contrary, actively participates in that process of social evolution and transformation inaugurated by the October Revolution. Artists as Alexander Rodchenko and Varvara Stepanova (Varst), who had previously worked in the realm of figurative art as well, soon abandoned the aesthetic 'composition' to embrace instead the 'construction' following the Productivist principles. The demarcation between art, life and production thus dissolves into the program of a radical renovation involving any aspect of daily life.

Within the quest for an absolute change, clothing constitutes a fundamental symbolic component: the objective for the Constructivists is in fact to create 'production clothing' (*prozodezhda*) that is no longer vehicle of signs evoking social distinctions, but is rather practical, light and comfortable. In the overalls conceptualized and designed by Stepanova, any reference to an individual's social role or aesthetic preferences is completely absent. In the article '*Kostjum segodnjasnego dnja-prozodezhda*' ('Present Day Dress – Production Clothing'),^{xl} Stepanova explains that the worker's overall is conceived for a specific social action, and is diversified depending on the mansion the worker is called to fulfill.

The October Revolution, as remarked by Tat'jana Strizhenova, contributed to eliminate social discrepancies in the way people used to dress, being the only differences determined by: the profession, the environment (urban or rural), the climatic conditions, the national and cultural traditions of the various Soviet republics.^{xli} Varvara Stepanova, Liubov Popova, Alexander Rodchenko and Vladimir Tatlin all design simple, hygienic and functional clothes. Stepanova's programmatic article with its insistence on functionality, anonymity, simplicity,

efficiency, and a precise social role for clothes, is perhaps the most eloquent and radical proposal.^{xlii}

The functional role of clothing, its 'utilitarian' status, is exhaustively explained by Stepanova in the article for *LEF*: abolished are decorative motifs, while the buttoning and stitching giving shape to the garment are to be exhibited; any detail responds to the specific needs dictated by the material realization and the profession the garment is destined to. Hence it does not contemplate any arbitrary design solution, and has no independent value, with the exception of the social function it performs. In this sense, the *prozodezhda*, also called by Stepanova 'programmed clothing', is an immediate expression of the Constructivist tendency towards rationalization and uniformity, in which the concept of clothing as 'artistic work' succumbs to the needs dictated by the organization of ordinary life. Among the different variants of production clothing conceived by Stepanova, a special place is reserved to the '*specodezhda*', designed for a group of specific professions such as surgeons, aviators, workers of factories producing acids, firemen, Arctic explorers. Finally, the '*sportodezhda*' is a version conceived especially for sports and, depending on the particular discipline and the team it has to represent, acquires characteristic details.^{xliii}

A photo dated 1922 shows Rodchenko wearing a model of overall that can be assimilated to the *prozodezhda* developed by Stepanova, while in the background lay some of Rodchenko's disassembled spatial constructions.^{xliv} **[Images 10 - 11]** The single-piece overall, made of stiff wool and leather inserts, is defined by a rigorous geometry that relies on an absolute stylization of the human forms. In all the designs for production clothing, the form and structure are indeed extremely clear. The one worn by Rodchenko presents the artist as a worker, dressed in an everyday garment that would result familiar to the majority of the population and at the same time embodies the collective nature of Soviet society. And yet the model unequivocally suggests the forward-looking technological agenda of Modernism. Indeed, the geometric integrity of the working clothes by Stepanova, Rodchenko and Popova, observes Margarita Tupitsyn, is just an instance of the broad Constructivist-Productivist aim at 'geometrizing everyday life and people's movements'.^{xlv} The straight line and the geometrical compositions acquire the utopian power to shape, in any sector, ordinary life as well as the monumental style of the Russian Soviet Federative Socialist Republic.

As a consequence of this rationalization of clothing, the sexual difference seems to become irrelevant, or seems even suppressed. A peculiar 'neutrality' characterizes not only work wear but also the theatrical costumes designed by Stepanova and Popova, where the gender is only indicated by the alternative 'skirt or trousers'. In this respect, Christina Kiaer has argued: 'Constructivism's egalitarianism may have stemmed as much from the way in which it attempted to reconceptualise the relation between masculine and feminine areas of experience, as from the way in which attempted to neutralize – or neuter – the differences between them'.^{xlvi} In discussing new clothes, furniture design, and in particular his creations for the play *Inga*, Rodchenko admits the difficulty represented by the rationalization of the female suit, a question that can be posed only theoretically, 'because its solution is an extremely difficult assignment'. He adds then: 'This question needs work and more work, connecting the artist's search with everyday conditions'.^{xlvii}

Despite being designed for the reality of ordinary life in the socialist society, the Constructivist overall, the *prododezhda*, remained an experimental design, and was never put into production, being exclusively adopted by the avant-garde that created it. Given the impossibility to count on mass-production, many Constructivist designs were in fact mainly spread through periodicals, posters and photomontages. Consequently, other Soviet designs followed the same destiny of the *prododezhda*, due to the lack of resources in the difficult economic circumstances of the post-revolutionary period.^{xlviii}

In practice, after the Civil War (1918–20) the productivity was severely mined, and the textile industry needed artists and designers to face the challenge of the production crisis within a new, and no longer artisanal, perspective. An official appeal was then launched by Aleksandr Arkhangel'skii, director of the First State Textile Printing Works in Moscow, along with Professor Petr Viktorov of Vkhutemas, and was published in the newspaper *Pravda* (1923). The first artists to respond were Popova, Stepanova, Rodchenko and Aleksandra Ekster. In the same year Popova and Stepanova became textile designers in the First State Textile Print Factory in Moscow, thus entering real and mass production. In 1923, the art critic J. Tugencholyed writes: 'In the textile field, instead of the previous old imitations of foreign models, we have new fabric designs ... in which for the first time the research of artists on the Left has been applied to the industry; they reflect all the intense dynamic of life'.^{xlix} Popova and Stepanova's innovation consisted in strictly relating textile designs to the principles of clothing designs, conceiving them as a whole.^l This new methodology has been understood as a transition from a purely ornamental to 'an architectonic conception of fabric and dress'.^{li}

A particularly fruitful context within which the experimentations of Stepanova and the others could take place and be tested is costume design. Following a formal criterion of geometric abstraction, the artist develops prototypes that ideally could be extended to different uses, external to the scenic environment. **[Image 12]** Similarly, Lyubov Popova in planning the costume and set design for the Meierkhol'd production of *The Magnanimous Cuckold* (1922), declares: 'In this particular task I wanted to find a general principle of *prododezhda* for the professional work of the actor in connection with the essentials of his present professional role'.^{lii}

In the Constructivist perspective, each profession – may it be that of factory worker or actor – demanded its own uniform, which had to be constructed adhering to the norms of convenience and appropriateness determined by the profession. Interestingly, the fictional universe of theatre, which had for the Constructivists a fundamental relevance, became the testing ground for prototypes ideally destined to ordinary life.

In its aspiration to enter any aspect of everyday life, Constructivism can be properly understood as a 'domestication' of the avant-garde, that is, observes Kiaer, a 'bringing home of the avant-garde, a practice in which Rodchenko, Popova, Stepanova, Tatlin and others participated with equal fervour'.^{liii} A common thread in the works of these artists, may they create paintings, costumes or textiles designs, is the rigorous geometry. The line, triangle, rectangle were in fact the creative 'laboratory' of Rodchenko, Popova, Stepanova and Tatlin.^{liv} Following the words of Popova, 'the organisation of elements' and 'the significance of each element – line, plane, volume, colour' for the final product were the primary concern in the Constructivist experimentations.^{lv}

The geometric abstraction, intertwined with the faith in the technological progress, is the shape in which the great ambitions of the Constructivists partly materialized themselves in the post-revolutionary Russia. The very unstable economic and political conditions of the time, in fact, rendered only few projects realizable on vast scale, among which were the textiles by Popova and Stepanova. Despite the contingent difficulties due to the historical moment, the peculiar 'domestication' of the avant-garde, which Constructivism represents, as well as the intention to spread across different layers of society, is a vocation shared by Italian Futurists too. Both movements, in eliminating the distance between art and life, follow the path of the geometric linearity and develop, each one in its own way, a machine-influenced aesthetic. In this respect, the Futurist utopia of the hybrid man-machine constitutes an illuminating example of the importance assigned to technological achievements. As pointed out by Cinzia Sartini, in the Futurist poetics, especially that of Marinetti, 'the machine is celebrated as a new inspiring muse, aesthetic model and object of desire...The

myth of a regenerating union of man and machine constitutes the supporting framework of the fiction of power'.^{lvi} For the leader of Futurism, the automation of production possesses the potential to free culture from the burdens of the old humanism and its cult of reflective distance and interiority.^{lvii}

It is clear that the divergences between the two movements are numerous, and yet in interpreting the modern condition in the post-war years, they both emphasized the social role of art and the relevance of industrial production. The transformation of society auspicated by artists from both groups ponders on clothing as a fundamental component of life, and takes the form of experiments that in some cases, as that of the *tuta*, enter the reality of life promoting a concrete democratization of fashion. In this sense, Thayaht's sartorial invention represents an exception, being in fact absolutely accessible in respect to the vibrant eccentricity of the Futurist designs. Thayaht's and the Constructivists' proposals constitute indeed a crucial instance of that shared aspiration to design a new world, finding also a mode of clothing for the new era. Interesting is that the spectacular valence that clothing holds within the Futurist programs is completely reversed in the Constructivist perspective, where the spectacle rather becomes the privileged testing ground for the less spectacular reality of daily life.

Dr Flavia Loscialpo

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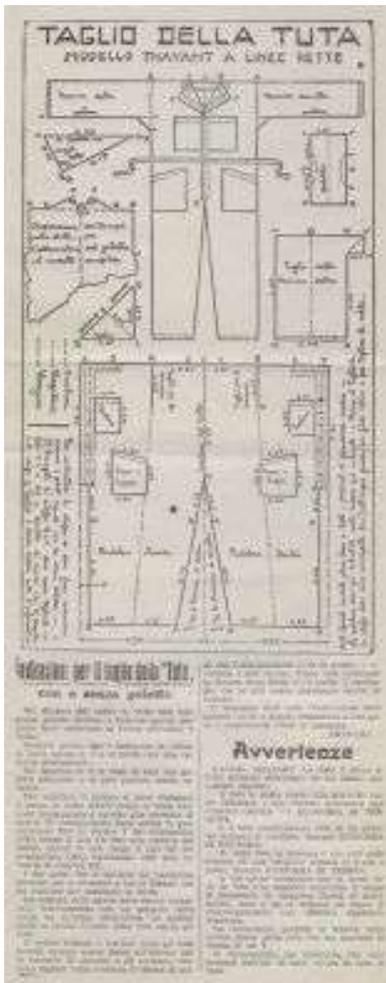
Images

Image 1:



Thayht wearing the *tuta*, 1920.

Image 2:





RAM, *Tuttintuta*, postal card, 1920.

Image 5:

TUTTI CON LA TUTA



questo al colare e gonne sempre sciolte,
 Spezie le donne si mettono a dire:
 Poveri uccelli, vanno a gambe all'aria.
 Un Tuty tutti erubescano
 che lo è nati mortali,
 senza calzoni e le sandali
 disprezzano gli strali.
 E poi per riguardar
 tutti in capelli van,
 il cappellato brecciale
 che gli tocca arvan.

Chi veste con la Tuta di turchino
 si può scambiar per antinobiliato
 e quando è sparito poi, pare un destina,
 veder si sembra del tito un fuochino.

Ma di culture cambiano,
 c'è chi ce l'ha mettono
 e tanti frati sembrano
 di Mantracostano.

Nessun lo può angos,
 dico la verità,
 gli manca sul la ciferata
 e un convento ce scortata.

Chi ce ha la Tuta non si può gurgire,
 perché è proibito andar a Montecitorio,
 se no altrimenti non sa come fare
 a andar di corsa dentro al capitolio,
 sotto la Tuta si deve calare.

Allora c'è da ridere
 con quella confusione,
 per donna allora si scambiano
 con la "combinazione".

Solo ce manchereb
 per quelle scortie
 un poco di belletto
 e cipria fare la questia.

Per toglier l'ingordigia ai pescatori
 che ce hanno il vizio ormai di speculare
 li metteremo a terra come cani
 addosso trovato il modo riprendere,
 e i nostri affari non saranno vani.

Non più giocattolo a tanto,
 neppure i pantaloni,
 era un vestito unico
 anche per chi ha i milioni.

Che grande successo
 che agitate le innestati...
 Le chiamano la Tuta
 e universale possa sarà.

Un condimento di tale ordinare
 viene a costare circa trenta lire.

Tip. Bernarini, Canto de' Nelli 30, Firenze

Disegnato nel 1914 dal celebre arte-fante Eugenio Zucchi - Idea - Illustrato il 1920 da
 Per dipingere bene studiare, facendo qualche schizzo, quindi colorare, secondo consiglio in buon con-
 sulto per gli. Materiale usato: Pitta Marginal, F.lli S. Giovanni, S. Firenze - Genova - Livorno.

Thayaht, flyer advertising the *tuta*, with the original lyrics for the carol ‘*Tutti con la tuta*’ (Everybody with the tuta), 1920.

Image 6:



RAM, *Modella nell'atelier*, 1919 circa, a metaphysical painting of the time. by Courtesy of Riccardo Ernesto Michahelles, Florence (Italy).



Thayaht wearing the *tuta* and ‘Forte dei Marmi’ sandals.

Image 7:



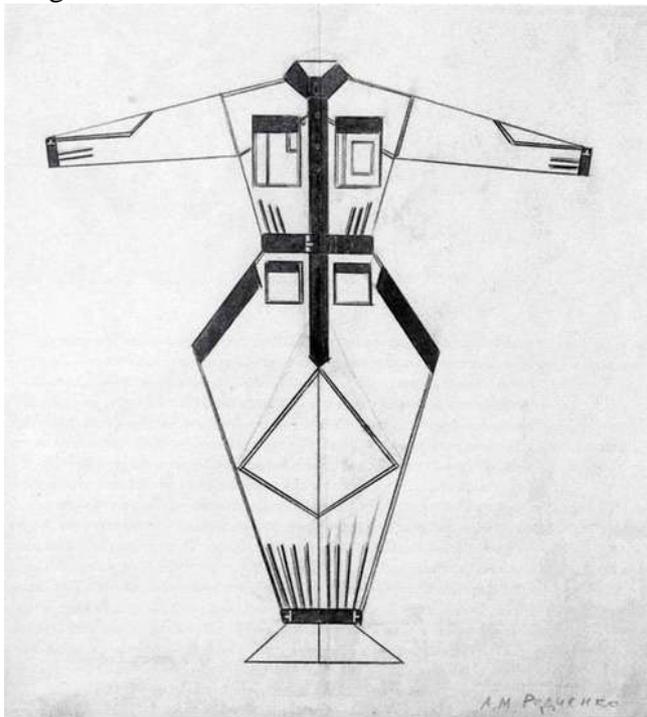
Study featuring six proposals for the logo of Madeleine Vionnet. Signed 'Tayat.', without the 'h', 1919. Pencil and gouache on paper, 180 mm x 250 mm. Courtesy of Riccardo Ernesto Michahelles, Florence (Italy).

Image 8:



Postal cards created for the atelier of Madeleine Vionnet (1919-1922). Courtesy of Riccardo Ernesto Michahelles, Florence (Italy).

Image 8:



Alexander Rodchenko, single-piece overall, 1922 circa.

Image 9:



Alexander Rodchenko wearing production clothing realized by Varvara Stepanova, 1922 circa.

Image 10:



Varvara Stepanova, costumes for the play *The death of Tarelkin* by Sukhovo-Kobylin, Meierkhol'd production, 1922.

Selected bibliography

- Adaskina, N.L., *Liubov Popova*, Harry N.Habrams, New York, 1990.
- Apollonio, U. (ed.), *Futurist Manifestos*, Tate Publishing, London, 2001.
- Arvatov, B., *Kunst und Produktion*, Carl Hanser Verlag, Munchen, 1972.
- Braun, E., 'Futurist Fashion: Three Manifestoes', in *Art Journal*, 54, 1, 1995.
- Celant, G. and Maraniello, G. (eds.), *Vertigo: A Century of Multimedia Art, From Futurism to the Web*, Rizzoli, London, 2008.
- Celant, G., Sischy, I., Tabatabai Asbaghi, P. (eds.), *Art/Fashion*, Skira Editore, Milan 1977.
- Cerutti, C. and Sgubin, R., *Futurismo, moda, design: la ricostruzione futurista dell'universo quotidiano*, Musei Provinciali di Gorizia, Gorizia, 2009.
- Chadwick, W., *Women, Art and Society*, Penguin, London, 1997.
- Chiarelli, C. (ed.), *Per il sole e contro il sole. Thayaht e Ram. La tuta/Modelli per tessuti*, Sillabe, Livorno, 2003.
- Conio, G., *Le Constructivisme russe*, vol.II, Âge d'homme, Lausanne, 1987.
- Crispolti, E., *Il futurismo e la moda. Balla e gli altri*, Marsilio, Padova, 1986.
- Crispolti, E., *Il mito della macchina e altri temi del Futurismo*, Celebes, Trapani 1969.
- De Maria, L. (ed.), *Teoria e invenzione futurista*, Mondadori, Milan, 1968.
- Degl'Innocenti, D. (ed.), *THAYAHT. Un artista alle origini del Made in Italy*, Museo del Tessuto Edizioni, Prato, 2007.
- Fonti, D., *Thayaht Futurista Irregolare*, Skira, Milan, 2005.
- Garavalia, L.F. (ed.), *Il futurismo e la moda*, Excelsior, Milan, 2009.
- Gunther, H. and Hielscher, K., *Arte, produzione e rivoluzione proletaria*, Guaraldi, Florence and Rimini, 1973.
- Gnoli, S., *Un secolo di moda italiana: 1900-2000*, Meltemi Editore, Roma, 2005.
- Kirke, B., *Madeleine Vionnet*, Chronicle Books, San Francisco 1998.
- Lavrentiev, A., *Varvara Stepanova: The Complete Work*, The MIT Press, Cambridge MA, 1988.
- Lodder, C., *Russian Constructivism*, Yale University Press, New Haven and London, 1983.
- Maraini, A., *Thayaht, Scultore, Pittore, Orafo*, Edizioni Giannini, Firenze, 1932.

- Martin, R. (ed.), *Cubism and Fashion*, The Metropolitan Museum of Art, New York, 1998.
- Ottinger, D. (ed.), *Futurism*, Centre Georges Pompidou and 5 Continents Editions, Paris and Milan, 2008.
- Paolucci, A. and Laghi, A.V. (eds.), *L'estate incantata - Ram e Thayaht da Parigi a Casa Bianca*, Pacini Editore, Pisa, 2006.
- Pratesi, M. (ed.), *Futurismo e Bon Ton - I fratelli Thayaht e RAM*, Leo S. Olschki Editore, Firenze, 2005.
- Rodchenko, A., *Experiments for the Future*, edited by A.Lavrentiev and J.E.Bowlit, The Museum of Modern Art, New York, 2005.
- Sartini Blum, C., 'The Futurist Re-Fashioning of the Universe', in *South Central Review*, 13, 2/3, 1996.
- Schnapp, J.T., 'The Fabric of Modern Times', in *Critical Inquiry*, 24, 1, 1997.
- Strizhenova, T., *Moda e Rivoluzione*, Electa, Milano, 1979.
- Tupitsyn, M., *Rodchenko & Popova. Defining Constructivism*, Tate Publishing, London, 2009.
- Wunder, R.P., *Hiram Powers: Vermont Sculptor, 1805-1873*, Vol. 1: Life, and Vol.: Catalogue of Works The American Art Series, University of Delaware Press, Newark; Associated University Presses, London and Cranbury, NJ, 1989-1991.
- Yasinskaya, I., *Soviet Textile Design of the Revolutionary Period*, Thames and Hudson Ltd., London, 1988.
- Zhadova, A., *Tatlin*, Rizzoli Int Publications, London, 1988.
- Zalambani, M., 'L'art dans la production. Le débat sur le productivisme en Russie pendant les années vingt', *Annales. Histoire, Sciences Sociales*, 52, 1, 1997.
- Zaletova, L., *L'abito della rivoluzione*, Marsilio, Venezia, 1987.
- Zaletova, L., Ciofi degli Atti, F., Panzini, F. et al. (eds.), *Revolutionary Costume. Soviet Clothing and Textiles of the 1920s*, Rizzoli Publications, New York, 1989.

Notes

ⁱ U. Boccioni, 'Note per la conferenza tenuta a Roma', in E.Coen, 'There Will Come A Time When Paintings Are No Longer Enough' in *Vertigo: A Century of Multimedia Art, From Futurism to the Web*, edited by G. Celant and G. Maraniello, Rizzoli, London, 2008, p. 43

ⁱⁱ O.Brik, 'From Painting Canvas to Printing Cloth', *Lef*, 2, 6, 1924, pp.27-34, in L.Zaletova, F.Ciofi degli Atti, F.Panzini et al., *Revolutionary Costume. Soviet Clothing and Textiles of the 1920s*, Rizzoli Publications, New York, 1989, p.175.

ⁱⁱⁱ ‘Ricostruzione futurista dell’universo’, signed by Balla and Depero in 1915, reproduced in *Futurismo, moda, design: la ricostruzione futurista dell’universo quotidiano*, edited by C.Cerutti and R.Sgubin, Musei Provinciali di Gorizia, Gorizia, 2009, p.237.

^{iv} In respect to this, it has been argued that early Futurism was ‘a reaction against the fin-de-siècle malaise that took the form of a pervasive sense of a dislocation in the logical, causal relationship between past, present, and future’, C.Sartini Blum, ‘The Futurist Re-Fashioning of the Universe’, in *South Central Review*, 13, 2/3, 1996, p.82.

^v E. Braun, ‘Futurist Fashion: Three Manifestoes’, in *Art Journal*, 54, 1, 1995, p. 35.

^{vi} U. Boccioni, C. Carra, L. Russolo, G. Balla, G. Severini, ‘Manifesto of the Futurist Painters’, 1910, in *Futurist Manifestos*, edited by U. Apollonio, Tate Publishing, London, 2001, p. 26

^{vii} E. Braun, *ibid.*

^{viii} W. Chadwick, *Women, Art and Society*, Penguin, London, 1997, p. 245.

^{ix} ‘Muscular colors’ indicate very bright, even fluorescent, tonalities: ‘*rossissimi, verdissimi, gialloni, aranciooooooni, vermiglioni*’. In the introduction of the manifesto, dark colors are associated with the mediocrity of bourgeois culture, while bright colors boast a new bellicose vitality. The notion of sartorial musculature is emphasized throughout both versions of the manifestoes, particularly in their discussion of color. J.T.Schnapp, ‘The Fabric of Modern Times’, in *Critical Inquiry*, 24, 1, 1997, p.199.

^x E.Braun, *op.cit.*, p.35.

^{xi} In Italian, ‘Manifesto della moda femminile futurista’, published on 29 February 1920 in the newspaper «Roma Futurista». Reproduced in *Futurismo, moda, design: la ricostruzione futurista dell’universo quotidiano*, edited by C.Cerutti and R.Sgubin, Musei Provinciali di Gorizia, Gorizia, 2009, p.236.

^{xii} *Ibidem*, the original reads ‘le conquiste piu affascinanti della vita moderna’.

^{xiii} *Ibidem*, the original: ‘Glorificheremo la carne della donna in un frenesia di spirali e triangoli. Arriveremo a scolpire il corpo astrale della donna collo scalpello di una geometria esasperata!’.

^{xiv} In respect to gender difference, eloquent is the position of Marinetti as expressed in the later poem, written by in 1940, ‘Simultaneous Poetry of Italian Fashion’, reproduced in Italian in *Teoria e invenzione futurista*, edited by L.De Maria, Mondadori, Milan, 1968, pp.1188-1189.

^{xv} See B.Kirke, *Madeleine Vionnet*, Chronicle Books, San Francisco, 1998.

^{xvi} For an accurate genealogy, and the complete works of Hiram Powers, see R.P.Wunder, *Hiram Powers: Vermont Sculptor, 1805-1873*, Vol. 1: Life, and Vol.: Catalogue of Works The American Art Series, University of Delaware Press, Newark; Associated University Presses, London and Cranbury, NJ, 1989-1991.

^{xvii} Lecture ‘La Pittura Futurista’, given by Umberto Boccioni at the Associazione Artistica Internazionale, Rome, May 1911, in *Futurism*, edited by D. Ottinger, Centre Georges Pompidou and 5 Continents Editions, Paris and Milan, 2008, p. 55.

^{xviii} The adjective ‘synthetic’ refers in this case to the qualities of being comfortable, aesthetic and fresh, as explained by Ernesto Thayaht and Ruggero Michahelles in the ‘Manifesto for the Transformation of Male Clothing’ (‘Manifesto per la trasformazione dell’abbigliamento maschile’, 1932). Reproduced in Italian in E.Crispolti, *Il futurismo e la moda. Balla e gli altri*, Marsilio, Padova, 1986, p.137.

^{xix} *Indicazioni per il taglio della “tuta” con e senza goletto – Avvertenze*, published in «La Nazione», 19 June 1920.

^{xx} *Ibidem*.

^{xxi} E.Thayaht, *La tuta nel 1921*, manuscript, Archivio Seeber, Rome, quoted in *Per il sole e contro il sole. Thayaht e Ram. La tuta/Modelli per tessuti*, edited by C.Chiarelli, Sillabe, Livorno, 2003, p.12.

^{xxii} These leather sandals, with two holes on the front, reached extreme popularity in Italy, and have been adopted by several generations of children.

^{xxiii} See A.Maraini, *Thayaht, Scultore, Pittore, Orafo*, Edizioni Giannini, Firenze, 1932; and *THAYAHT. Un artista alle origini del Made in Italy*, edited by D. Degl’Innocenti, Museo del Tessuto Edizioni, Prato, 2007.

^{xxiv} G.Uzzani, essay ‘Per il sole e contro il sole’, in the catalogue *Per il sole e contro il sole. Thayaht e Ram. La tuta/Modelli per tessuti*, edited by C.Chiarelli, Livorno, Sillabe, 2003, p.12.

^{xxv} Giovanna Uzzani recalls that the overnight popularity of the *tuta* caused a significant rise in the price of cloth in Florence; the newspaper «La Nazione» threatened then to render public the names of those retailers that were speculating on the increasing demand of the material, *ibidem*.

^{xxvi} In the same year, Marinetti encouraged women to abandon any expensive habits in his manifesto ‘Against Female Luxury’. F.T.Marinetti, ‘Contro il lusso femminile’, in E.Crispolti, *op.cit.*, p.116; simultaneously, Lydia De Liguoro, director of the popular magazine *Lidel*, at the Congress of Clothing Manufacturers and Retailers, in 1920, warned not to buy imported luxury goods, promoting thus the Fascist ideals of saving in times of economic crisis while supporting Italian production, S.Gnoli, *Un secolo di moda italiana: 1900-2000*, Meltemi Editore, Roma, 2005, p.46.

^{xxvii} *Avvertimenti alle ‘tutiste’*, in «La Nazione», 2 July 1920, published in E.Crispolti, *op.cit.*, p.132.

^{xxviii} *La ‘tuta’ nel 1921*, in «La Nazione», 7 July 1921.

^{xxix} Ernesto Thayaht was said to be very attentive in his way of dressing and appearing. See *Il futurismo e la moda*, edited by L.F.Garavalia, Excelsior, Milan, 2009, p.151: ‘la cura di un artista che ama farsi notare anche come persona’.

^{xxx} Indeed, *Thayaht Futurista Irregolare* (‘Thayhat Irregular Futurist’) is the title of the exhibition dedicated to Thayaht’s polyhedric activity by Mart – Museum of Contemporary and Modern Art, Rovereto, Italy, 2005. See also the catalogue *Thayaht Futurista Irregolare*, edited by D.Fonti, Skira, Milan, 2005.

^{xxxi} During his intense collaboration with the Atelier Vionnet, Thayaht applied the principles of dynamic symmetry, which he studied by Jay Hambidge at Harvard University in 1920. Especially in the illustrations he produced, it is possible to appreciate the line forces creating a peculiar dynamism within the image. Remarks Richard Martin: ‘as much as his line of forces suggest motion and eternity in the utopian forms of clothing that included asymmetrical vests and jackets for men with Futurist prints, his 1920s illustrations for Vionnet suggest at least an exalted ephemerality for fashion’, *Cubism and Fashion*, edited by R.Martin, The Metropolitan Museum of Art, New York, 1998, p.129.

^{xxxii} In the same year the Futurist aeropainter Mino delle Site designed a thermal *tuta*, made of physiological material and suitable for any season, allowing the body to breathe and keeping its temperature.

^{xxxiii} N.Tarabukin, *Ot molberta k mashine, Rabotnik prosveshchenila*, Moscow, 1923, pp.23-24, quoted in J.E.Bowl, ‘Manufacturing dreams: textile design in revolutionary Russia’, in L.Zaletova, F.Ciofi degli Atti, F.Panzini et al., *Revolutionary Costume. Soviet Clothing and Textiles of the 1920s*, Rizzoli Publications, New York, 1989, p.17.

^{xxxiv} *LEF* was launched, in 1923, by Vladimir Mayakovsky who edited it in collaboration with Osip Brik. Reflecting the concerns of Productivist ideology, it featured regular contributions

by Alexander Rodchenko, Varvara Stepanova, Sergein Eisentein, Boris Parsternak, Dziga Vertov, Boris Arvatov, Alexei Gan, Liubov Popova etc. From 1927 to 1929 run as *Novy LEF* (New *LEF*), to finally be discontinued in 1929 following a dispute over its direction.

^{xxxv} Cited, in Italian, in Lidija Zaletova, *L'abito della rivoluzione*, Marsilio, Venezia, 1987, pp.175-177.

^{xxxvi} 'To production!' or, following the French translation, 'A la production!', *LEF*, 1, 1923, pp.105-108; see G. Conio, *Le Constructivisme russe*, vol.II, Âge d'homme, Lausanne, 1987, pp.43-44.

^{xxxvii} *Iskusstvo i proizvodstvo*, Proletkul't, Moscow, 1926, in B.Arvatov, *Kunst und Produktion*, Carl Hanser Verlag, Munchen, 1972; and in *Arte, produzione e rivoluzione proletaria*, edited by H.Gunther and K.Hielscher, Guaraldi, Florence and Rimini, 1973.

^{xxxviii} For an accurate reconstruction of the ideological debate that gave origin to the avant-garde recognizing itself in the slogan 'art into production', see M.Zalambani, 'L'art dans la production. Le débat sur le productivisme en Russie pendant les années vingt', *Annales. Histoire, Sciences Sociales*, 1997, 52, 1, pp. 41-61. Taking departure from a close examination of the sources, the author demonstrates that the theoretical path leading to Productivism and Constructivism was not an easy one, and was rather strewn with dissensions and infighting.

^{xxxix} A.Rodchenko, *Experiments for the Future*, edited by A.Lavrentiev and J.E.Bowl, The Museum of Modern Art, New York, 2005, p.142.

^{xl} *LEF*, 2, 1923, pp.65-68, entirely reproduced, with the title 'Today's Fashion is the Worker's Overall', in L.Zaletova, F.Ciofi degli Atti, F.Panzini et al., *Revolutionary Costume. Soviet Clothing and Textiles of the 1920s*, Rizzoli Publications, New York, 1989, pp.173-174. The title cited in the text follows the translation proposed by Christina Lodder, *Russian Constructivism*, Yale University Press, New Haven and London, 1983, p.147.

^{xli} T.Strizhenova, *Moda e Rivoluzione*, Electa, Milano, 1979, pp.5-6.

^{xlii} At GINKhUK, the State Institute for Artistic Culture in Petrograd, Tatlin created models, in particular a workman's suit and coat, which allowed complete freedom of movement and responded to the new functions that clothing assumed in the Constructivist program. Nevertheless, these designs were never industrially produced. The GINKhUK, as reported by Tatlin, was concentrated in formulating 'clothing norms' and in discovering 'the properties of materials' to provide patterns for production, see V.Tatlin, 'Report of the Section for material Culture under the Museum of Artistic Culture to the Leningrad Division of the Main Directorate of Scientific Institution', May 1924, in A.Zhadova, *Tatlin*, Rizzoli Int Publications, London, 1988, p.250

^{xliii} V.Stepanova, 'Kostjum segodnjasnego dnja-prozodezhda', *Lef*, 1923, 2, in L.Zaletova, F.Ciofi degli Atti, F.Panzini et al., *op.cit.*, p.173.

^{xliv} The authorship of the *prozodezhda* worn by Rodchenko has been clouded by ambiguity, as Christina Lodder acutely points out. Some, as Strizhenova, imply that the *prozodezhda* featuring in the photo of 1922 was made by Rodchenko himself; nevertheless, the same photograph is reproduced in the article O.Beskin 'Otvot napravo – zapros nalevo', *Sovetskoe iskusstvo*, 1925, 6, p.8, with the apposite caption 'V.Stepanova' – production clothing'. See C.Lodder, *op.cit.*, p.292, n.8. It is then to be believed that Rodchenko designed that particular overall, which was actually realized by Stepanova. While Rodchenko's overalls were never produced and rather remained prototypes, the artist was actively involved in making theatrical costumes, as those for the play *Inga* by Anatolii Glebov (1929).

^{xlv} M. Tupitsyn, 'Being-in-production: The Constructivist code', in *Rodchenko & Popova. Defining Constructivism*, edited by M.Tupitsyn, Tate Publishing, London, 2009, p.25.

^{xlvi} C.Kiaer, ‘His and Her Constructivism’, in *Rodchenko & Popova. Defining Constructivism*, edited by Margarita Tupitsyn, Tate Publishing, London, 2009, p.145.

^{xlvii} A.Rodchenko, *op.cit.*, p.199.

^{xlviii} Tat’jana Strizhenova remarks that in 1917 serial production in dressmaking was barely existent, as 97% of the garments were still confectioned within an artisanal, almost feudal, environment; at the time, technological development was poor and the raw materials were extremely scarce, T.Strizhenova, *op.cit.*, p.5

^{xlix} Quoted in I.Yasinskaya, *Soviet Textile Design of the Revolutionary Period*, Thames and Hudson Ltd., London, 1988, p.11

^l Stepanova developed a methodology of working establishing that ‘pattern will be standardized and will eventually be expressed in the processing of the fabric’s structure’, A.Lavrentiev, *Varvara Stepanova: The Complete Work*, The MIT Press, Cambridge MA, 1988, p. 82.

^{li} J.E.Bowlt, ‘Manufacturing dreams: textile design in revolutionary Russia’, in L.Zaletova, F.Ciofi degli Atti, F.Panzini et al., *op.cit.*, p.17.

^{lii} L.Popova, ‘Vstuplenie k diskussii INKhUKa o “Velikodushnom rogonostse”’, 27 April 1922, English translation in C.Lodder, *op.cit.*, p.149

^{liii} C.Kiaer, *op.cit.*, p.154.

^{liv} See ‘Who We Are. Manifesto of the Constructivist Group’, in A.Rodchenko, *op.cit.*, pp.143-145.

^{lv} L.Popova, ‘Raboty 1920–21gg.’ (December 1922), English translation in D.V.Sarabianov and N.L. Adaskina, *Liubov Popova*, Harry N.Habrams, New York, 1990, p.359.

^{lvi} C.Sartini Blum, *op.cit.*, p.88

^{lvii} The futurist leader of the Italian Royal Academy even pairs the non-humanity of Futurist poems to the Productivist tendency of the Soviet avant-garde: ‘While the earth’s poets continue more or less to spin nostalgias and despairs around the verses of Leopardi, Baudelaire or Mallarmé, the Italian Futurist Movement has for many years prompted its poets and artists to create a ‘non-human’ poetry and art, which is to say a poetry and art extraneous to humanity thanks to its systematic extractions of new beauties and new music from the technicism of machine civiliation’, ‘Invito ai lettori spregiudicati’, preface to Marinetti’s ‘Il Poema non umano dei tecnicisms’ (Non-Human Poem of Technicisms), in F.T.Marinetti, *Teoria e invenzione futurista*, Mondadori, Milan, 1983, p.1142; originally published in 1937, in the manifesto ‘Poetry and Corporatist Art’.