



## **J. M. W. Turner and the dynamics of perspective**

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### **► To cite this version:**

Hélène Ibata. J. M. W. Turner and the dynamics of perspective. *European Romantic Review*, 2008, 19 (4), pp.351-363. <10.1080/10509580802405734>. <hal-04747271>

**HAL Id: hal-04747271**

**<https://hal.science/hal-04747271v1>**

Submitted on 21 Oct 2024

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**J.M.W Turner and the dynamics of perspective.** Article publié dans *The*

*European Romantic Review* (October 2008)

As a leading landscapist, with early training in architectural drawing and topographic painting, J.M.W. Turner was, in his own times, a recognized master of perspective, whose command of the technique earned him in 1807 the Royal Academy's Professorship of Perspective. The lectures which he consequently delivered from 1811 to 1828, almost on a yearly basis, failed however to convey clearly his original conception of art in general, and of perspective in particular. Turner's audiences were baffled by his poor public speaking abilities, as a number of contemporary testimonies bear witness, many of them praising the beauty of the lecture diagrams while complaining about the unintelligibility of both the verbal content and the delivery itself (Whitley 205-08; 255-59). Commentaries ranged from the famous statement by an anonymous critic in the *Annals of Fine Arts* of 1820 that the course was "distinguished for its usual inanity, want of connection, bad delivery and beautiful drawings" (98), to more forgiving appreciations like the following:

Mr. Turner illustrated his discourse with some admirable perspective drawings well calculated to afford clearness to the definition of a science so abstruse as perspective, and which would otherwise be unintelligible in an oral essay. We make particular mention of these illustrative drawings, not merely on account of the high beauty which it may be supposed they possess, emanating from the hand of so celebrated an artist; but though to find fault is always a disagreeable task, we cannot help observing that Mr. Turner's delivery is by no means clear, and we apprehend that without the aid of the graphic auxiliaries his auditory would derive very little benefit from his lectures. (*The Times*, February 13, 1827)

The surviving lecture manuscripts, what with Turner's barely legible handwriting, his convoluted syntax (made all the more baffling by the lack of punctuation), or the numerous marginal revisions of the original text in the scripts which were used more than once, are similarly disconcerting,<sup>1</sup> and have consequently made the task of interpretation particularly challenging. In his insightful essay on Turner's work as Professor, Maurice Davies has nevertheless outlined a balanced argument in which, while Turner insists on the necessity for students to acquire the precise mathematical knowledge of standard, or linear, perspective (the famous *costruzione legittima*, or correct construction, devised in the Quattrocento by men like Brunelleschi and Alberti, and which still received strong theoretical backing at the time of the lectures), he also makes it clear that this should not become a constraint, and distinguishes between geometrical theories and artistic practice: in particular, he emphasizes the necessary distinction between vision and perspective, as well as the distortions linked to a strict application of the rules of linear perspective (40-41). Perhaps more importantly, as Davies shows, the lectures themselves demonstrate a personal and liberated approach to perspective, underscored by the painter's usually very brief explanations and inaccurate diagrams (where the position of vanishing points can generally be found to be erroneous) (45). In other words, Turner's lectures show how conscious the artist was of the necessity to distinguish between a strictly mathematical conception of perspective and individual perception. At the same time, they make it clear that for Turner, standard perspective remained the structural basis of landscape painting.

These views on perspective were after all very much in keeping with Royal Academy teaching, and particularly in the line of Sir Joshua Reynolds's *Discourses on Art*, which had equally balanced the importance of learning rules and the fact that such rules should not become fetters for the artist. Reynolds, whom Turner greatly admired, had indeed made it a fundamental principle of his teaching that "there are some rules, whose absolute authority, like that of our nurses, continues no longer than while we are in a state of childhood. . .", and while "it is very proper that those rules should be given in the Academy", the mature painter "will often find that he need not confine himself to the literal sense, it will be sufficient if he preserve the spirit, of the

law” (154-155). Turner’s liberated approach to perspective, as expressed in the lectures, seems to go hardly any further, and is certainly difficult to reconcile with the view of the artist as an abstract painter and forerunner of modernism, which, as Gage argues, “represents the strongest strand of twentieth-century criticism” (*Turner* 2) and to a certain extent still prevails today.

Was Turner too much under the influence of Royal Academy precepts and of intellectual and technical habits acquired from a very early age? Had he continued to lecture in the 1830s and 1840s, which he did not, would he not have voiced a conception of art more in keeping with his apparently more abstract late style? Or was he simply unable to express verbally his powerful insights about art? These are questions which require going beyond the texts of the lectures, and since Turner himself, as is well known, valued the didactic importance of pictorial practice, regularly painting in public on Varnishing Days<sup>2</sup> in order to demonstrate his methods, one may want to look at his pictorial production for answers. This is what the present analysis proposes to do, by looking closely at paintings which seem to further the theoretical reflection initiated in the lectures, and even to provide pictorial means to deal with a tension between convention and invention which Turner would have found very difficult to express verbally. The three paintings selected can all be considered experiments with perspective. One, Turner’s striking wide angle view of Petworth Park, painted at the time of his last course of lectures (in 1828), can be seen as a direct illustration of his Professorial reflections about the discrepancy between the visual experience and standard perspective. The other two, his very famous 1842 *Snow Storm and Rain, Steam and Speed* (1844) have a clear didactic intention, having been shown at the Royal Academy annual exhibition and completed on Varnishing Days; they have also been chosen as finished and therefore “reliable” examples of Turner’s late style, which seemed to flout convention more deliberately than ever. The aim of the analysis will be to see how Turner reconciled his firmly anchored technical habits with his urge to transform pictorial space, and in particular how far the classical convention for structuring landscape stands the test of his very dynamic conception of space and of man’s interaction with it.

## **I. Standard perspective and visual perception.**

Turner's preoccupation with the incompatibility of standard perspective and visual perception is one of the more prominent points developed in his lectures (Davies 36-43; see also Fredericksen 16). The second of his lectures, in particular, focuses on the flaws of standard perspective as far as the representation of curved objects and objects on the margins of the field of vision is concerned. Behind this technical concern however, one may see at work the contemporary urge to expand the field of vision beyond the visual pyramid defined by perspective theoreticians, which was increasingly felt as a rational constraint to the artist's imaginative faculties. Theories of the sublime, in particular, which inspired a lot of Turner's academic work, necessarily pointed out the inadequacies of exact perspectival construction, by prompting painters to extend the scope of representation towards further depths and distances, in order to better convey the majesty of historical backgrounds or the grandeur of Alpine or oceanic scenery. This is something which Turner must have felt keenly, with so much of his work striving, as Andrew Wilton puts it, to span "the gap between infinite space and the constricted two-dimensionality of the canvas" (39).

Turner's dramatic conception of landscape certainly required stretching perspective beyond its ordinary uses, in order to include within the pictorial space more than what mathematical projections could bring onto it: the vastness of natural scenes as well as that of the mind of the beholder. This is something that the lectures hint at, in their emphasis on the difference between the optical experience and standard perspective. However, it is in his pictorial practice that the implications of Turner's technical argument appear more clearly. *Petworth Park: Tillington Church in the Distance* (fig.1), a beautiful 1828 study (now at the Tate Gallery), can thus be seen as the direct product of Turner's reflections on the relations between visual perception and classical perspective projection, addressing such essential questions about perspective as that of

the extent of the field of vision and its transposition onto the canvas, or the correspondence of geometrical projections and naked eye vision.

*Petworth Park* was produced during one of Turner's stays at the estate of his famous patron, Lord Egremont, where he was given the freedom to paint as he pleased, and found the necessary quiet and isolation to explore space, light and color in new liberated ways. This view of Petworth Park from the terrace to the West of the Earl's house, just before sunset, can be seen as one such experiment with light and space. The fact that it is a study for the more finished cricket scene which has remained in the Petworth collection, may account for the artistic license and notably the freehand approach to perspective, which illustrates the gap between geometrical theory and artistic practice that the lectures had underlined. The experimental nature of the painting may also be a means for the artist to test his own reflections on the correlation between visual space and geometrical space, and on the interaction between three terms: the picture plane, the retinal image, and the subjective act of perception.

To explore those tensions, Turner seems to intentionally superimpose at least two perspectival systems. On the one hand, the paving of the narrow terrace, rather inconceivably forced into in the painting, hints at the exact geometrical construction which so many Renaissance paintings underscore through the representation of a tiled floor. On the other hand, beyond the terrace, this gives way to an essentially ellipsoidal construction, with a long shadowy curve sweeping through the painting from side to side in the foreground, structuring the image through contrasts of light and darkness. The first construction depends on concrete geometrical markers on the ground, whereas the other structures the image through light, shades and tonal contrasts (even though, given the position of the sun, which faces the viewer, the curve that structures the image cannot itself correspond to the shadow of the house). Interestingly, only this insubstantial structuring seems to lead towards a central vanishing point: the shades of the deer can be seen as so many vanishing lines leading almost exactly to the middle of the horizon line. On the other hand, the more concrete terrace is positioned obliquely to the left of the painting, as if to question the

familiar markers of standard perspective, and to suggest a considerably off-center vanishing point, perhaps even one that requires moving imaginatively within the space of the painting.

This slight shift between the two means used to convey perspective may be seen as a way for the artist to question more exact conceptions of perspective, and to put into practice his conviction, stated in the lectures, that a perspectival construction depends on arrangements of light and darkness as much as on geometrical markers, both being complementary: “Lineal picture then”, he says, “is the parent of Light & Shade as Light and Shade is that of Color. each reciprocal elevating” (MS A, f.19). The two perspectival systems in our painting can therefore be seen as complementary rather than conflicting, with the use of light providing a sensorial and dynamic dimension that would be missing from the more static geometrical technique.

Another means to give a more complete representation of visual perception in the painting is the use of the ellipsoidal construction, which emphasizes the panoramic nature of the landscape, brings the terrace into the field of vision (in spite of it being so narrow) and emphasizes the inadequacy of the picture space and optical experience. This is something which Turner had dealt with in his lectures, in the following terms:

The eye must take in all objects upon a Parabolic curve for in looking into space the eye cannot but receive what is within the limits of extended sight, which must form a circle to the eye. . . This is the case in Nature of Panoramic views, and they are produced by such means and the retina of the Eye being according to Mr Hamilton a parabola or in his words nearly a plane in the center of the eye receiving in a circle all produced produce at the point of intersection the parabolic curve. (MS D, 8-9)

This typically confused statement may have been a means for Turner to give a scientific foundation to his own predilection for vortex-like structures; but it also shows an awareness of the incompatibility of the retinal image and standard perspective projections which was unusual for his time and anticipates aspects of Panofsky’s reflection in his landmark 1927 essay, *Perspective as Symbolic Form*:

Exact perspectival construction . . . . forgets that we see not with a single fixed eye but with two constantly moving eyes, resulting in a spheroidal field of vision. It takes no account of the enormous difference between the psychologically conditioned “visual image” through which the visible world is brought to our consciousness, and the mechanically conditioned “retinal image” which paints itself upon our physical eye. . . . Finally, perspectival construction ignores the crucial circumstance that this retinal image – entirely apart from its subsequent psychological “interpretation,” and even apart from the fact that the eye moves – is a projection not on a flat but on a concave surface. (30-31)

Turner never formulated the point as clearly as Panofsky does here, but *Petworth Park* is a convincing pictorial experiment dealing with the problem by suggesting how perspective projection could be transformed to match a retinal image which is neither flat nor confined within a rectangle. This is done essentially by opening the field of vision and stretching it as far as possible. The panoramic view is intensified not only by the ellipsoidal structure, but also by the wide angle chosen and the remoteness of the horizon line.

Such an attempt to extend the visual scope that may be included in the pictorial space, however, undermines the rationalization of pictorial space which went along with standard perspective, by questioning the stationary nature of the view point, the very anchor of the rational space defined by classical perspective projection. This may explain why the network of shadowed diagonals is shifted away from the geometrical markers on the tiled floor. This is partly a means to create uncertainty and prevent the eye of the spectator from finding a resting spot in the distance, but also to force it out of its usual station point, in order to either look from the empty chair to the left toward Tillington church, or to project itself toward a more distant horizon from a vantage point to the right of the scene.

In other words, the spectator is made to move within or around the landscape, in order to better question the purely geometrical and rational structuring of classical perspective projection. Significantly, the plays of light and shade give more visual coherence than the paving of the terrace, whose oblique position within the composition may be seen as a symbolic rejection of classical structuring, with the empty chair alluding to the rejection of the fixed station point, to be



replaced by a more mobile viewing activity. The painting may then be understood as a statement against the systematic, continuous and homogenous space of standard perspective, structured by visible geometrical markers, preferring to it a less systematic representation, closer to naked eye vision, and especially to the progressive nature of the viewing activity. The complex perspectival construction of *Petworth Park* indeed suggests ways of transforming the pictorial space into a place for visual and even bodily exploration, by providing a multiplicity of vantage points rather than a single station point. The complexity of Turner's spatial structuring, as illustrated here, was derived from his itinerant preparatory work. As Davies notes, "Turner's finished works are often based on material contained in several sketches, each taken from a different position" (62). Such a dynamic approach to the pictorial process results here in a painting in which the viewer can see himself walking around the scene with the artist, and entering into an observed and individually experienced space, rather than a constructed one.

## **II. The immediacy of experience, in perspective.**

Turner's effort to bring movement and light into perspective painting therefore introduces a complex interaction between individual perception and the pictorial space, which goes together with a new conception of the viewing subject: *Petworth Park* suggests a viewing activity in which the subject's remoteness is replaced by increased immediacy, and introduces the temporal dimension of a point of view in progress. This was well in keeping with Turner's intensely itinerant approach to painting, of which the process of traveling and physically exploring space was an essential ingredient. Many commentators have emphasized his "extraordinary need for physical involvement" (Hamilton 79) and the fact, as Gage puts it, that "what makes travel of particular importance in Turner's work is not simply that he clearly enjoyed it and did so much of it, but that he made it again and again a subject of art" (*Turner* 66). Such an emphasis on the immediacy and the dynamic dimension of the viewing subject's experience of space could have

profound implications on the use of perspective, as appears in Turner's famous *Snow Storm: Steam-Boat off a Harbor's Mouth Making Signals in Shallow Water and Going by the Lead* (1842) (fig.2).

The very innovative composition, in which the boat seems to be both a distant object and the heart of the vortex which structures the painting, shows how much Turner had liberated himself by 1842 from the constraints of standard perspective. *Snow Storm* is a seascape made essentially of interacting masses, without fixed markers like a shore or a horizon line, or even without props to give a sense of scale. It is structured by the dynamics of waves and wind, rather than by linear components. However, the painting still creates the illusion of depth, first through the diminutive size of the boat and the even more remote and unobtrusive presence of the tug-boat in the distance, which could well go unnoticed without the detailed explanation provided by the title, but whose dark smoke the informed viewer can distinguish from the abstract mass it initially seems to be. Turner's achievement, however, is that he mostly manages to convey this sense of depth through textures and tonal contrasts, rather than through more figurative devices. The overall progression from darkness to light powerfully draws the viewer into the vortex, towards the two boats and then further, and this effect is enhanced by changes in texture, from the rough foam-like final brushwork in the foreground to the underlying layers in the distance.

*Snow Storm*, therefore, is not an ultimate rejection of perspective painting, but may instead be seen as a striking example of Turner's original renewal of perspective techniques, in order to discover new means to convey three-dimensionality. This required thinking of perspective in much more general terms than was then accepted, and is an approach closer to more recent understandings of perspective, as for instance the one suggested by James Gibson:

It is possible ... to think of perspective as a more general science than the rules of representative drawing, or the description of visual sensations or even the transformations of forms on one abstract plane to forms on another plane. It would be the geometry of the ways in which the light is reflected.

Linear perspective of the classical sort would be only a small part of it, for that is merely the perspective of the edges of rectangular objects. There is also the perspective of the textures of inclined surfaces, the gradients of texture-density, the steps of density at the edges of objects, the ratios of densities in different directions and still other variables of higher order. (218)

Such a definition is reminiscent of Turner's own insistence, especially in his fifth lecture (on reflection and color), on the interconnection of linear features, lights, shades, reflections and colors. Gibson's redefinition of perspective in terms of a whole range of variables, rather than simply linear ones, was meant to account for his conception of visual perception as a constant flux, which he felt the static vistas of standard perspective could not transcribe. A similar purpose may be felt in Turner's approach, as he focuses in the fifth lecture on the difficulty to apply the principles of linear perspective to changing surfaces such as water, and concedes that in such cases nothing can be as useful as the thorough observation of nature itself (MS H, 21-22). The violent motion of waves in *Snow Storm*, which goes against the possibility of monocular arrested vision, thus requires a new perspectival idiom, readily drawn from Turner's intense scrutiny of water and light effects (as a sea lover and dedicated fisherman), of texture, density and tone, all of which play a prominent part in our sense of perspective in the painting. These, contrary to linear elements, bring into the composition a sense of flux which adds a dynamic dimension to the pictorial space, more in keeping with the viewing subject's experience of space as something within which one moves rather than as an object of fixed external contemplation.

*Snow Storm*, then, with its dynamic rendering of pictorial space within a new and broader understanding of perspective, challenges the safely remote position of the viewing subject which had been established by standard perspective. This is made obvious in the very title of the painting, to which is added a significant detail: "*The Author was in this Storm on the Night the Ariel Left Harwich.*" Even though there is no circumstantial evidence that this was the case and the *Ariel* seems to be a fabricated name alluding to Shakespeare's *Tempest* (Gage, *Turner* 68), the implication is interesting. The painting can indeed be seen as an attempt to convey the artist's

presence within the seascape, as *the* center of perception around which revolves the whole composition. At the same time, Turner's statement raises the paradox of the artist's position: should he be perceived as present on the painted boat, or is the scene perceived from a remote vantage point on another boat? Is the artist to be seen as external perceiving subject or subject of the representation? The ambiguous status of the artist certainly presents us with the possibility of a split origin of perception, to be found both outside the representation and inside it, as the center of a perceptual sphere within the painting. This duality is completed by the tension within the composition between a centrifugal movement from the boat, with color surfaces spreading outwards, and the powerful centripetal projection implied in the vortex pattern, which seems to draw the viewer powerfully towards the same boat. Thus are acted out the central questions raised by perspectival constructions of the position and the participation of the viewing subject. *Snow Storm* makes obvious the latter's involvement within the painting: although with standard perspective, this subject is necessarily external to the painting, whose composition entails a closed system of projection onto the picture plane, it is at the same time implied within the system, as the origin of it. The first theoreticians of perspective were quite aware of the connection, as Hubert Damisch concludes from his analysis of Brunelleschi's perspectival experiments: "the distance established by the subject between itself and the object . . . allows it to escape from the immediacy of lived experience; but only to discover that it is itself implicated, inescapably, in a spectacle whose truth is a function, precisely, of its being so implicated" (379).

Turner's painting makes visible this implication and the duality of the viewing subject, at the same time external and included as the main organizing principle of the composition. Here is shown even more clearly than in *Petworth Park* Turner's awareness that the subject of visual perception is not the apex of a visual pyramid, but a participating center within the composition. *Snow Storm* can indeed be seen as an effort to deal with the fact that, as Panofsky postulates, the field of vision is not a plane, but a surrounding sphere (30), and to transpose onto the flat canvas the sense of an all-surrounding visual experience. W.J.T. Mitchell, for whom the painting is

exemplary of Turner's effort to overthrow the conventions of standard perspective through the use of vortical structures, emphasises this sense of perceptual immersion when he states that "the picture tries to show what it was like to be *in* the scene, enveloped by its energies, and not to be detached from that experience by the security of a cabin, a frame, or a secure sense of perspective" (140).

This raises new challenges: is not this absorption within the scene to be seen as a loss of self, with the viewing subject, cut from any fixed viewing point, symbolically tossed around by sea and wind, losing the control over the environment that standard perspective had established? Turner claimed that he had asked to be tied to the mast of the boat on which he was traveling in order to better observe the tempest around him. The claim may have been a means to tease his critics (Gage, *Turner* 68), or a reference to Ulysses, the tireless traveler with whom Turner identified (Mitchell 139; Hamilton 134), but its emphasis on the artist's unconditional plunge into and first-hand experience of landscape was a clear move away from the visual distancing entailed by the practice of linear perspective, and a means to restore the more complete bodily dimension of perception and of the act of painting. In this respect, Turner was a man of his times, wanting like Wordsworth to recover through artistic representation the original perceptual immersion in nature, or as Ruskin famously stated, to "go to Nature in all singleness of heart . . . having no other thoughts but how best to penetrate her meaning" (416; vol.1, pt. 2, sec. 6, ch.3). He was also showing his awareness of the physicality of the act of painting, after it had been so much intellectualized by Renaissance theoreticians and closer in time by Royal Academy teaching.

It is tempting to see in the immediacy of this pictorial approach and the resulting undermining of rational pictorial space which is at work in *Snow Storm* an anticipation of twentieth century longings for raw and primitive forms of perception. These, together with the mobility of the eye which they implied, were to be theorized notably in the works of the phenomenologists. What Merleau-Ponty writes about the painter's physical immersion in the world, in particular, could be seen as an apt theoretical expression of what is at stake in *Snow Storm*:

The painter “takes his body with him,” says Valéry. Indeed we cannot imagine how a *mind* could paint. It is by lending his body to the world that the artist changes the world into paintings. To understand these transubstantiations we must go back to the working, actual body – not the body as a chunk of space or a bundle of functions but that body which is an intertwining of vision and movement. (162)

This emphasis on the bodily requires, according to Merleau-Ponty, that the painter renounce all forms of perspective projection. “Space”, he writes, “is no longer what it was in the *Dioptric*, a network of relations between objects such as would be seen by a witness to my vision or by a geometer looking over it and reconstructing it from outside. It is, rather, a space reckoned starting from me as the zero point or degree zero of spatiality. I do not see it according to its exterior envelope; I live in it from the inside; I am immersed in it” (178). The sense of a surrounding field of vision and of immersion suggested in *Snow Storm* could be seen as the realization of such a conception of space. However, the perspectival conception of pictorial space still prevails, as we have seen, though profoundly transformed through the use of tone and texture. Turner himself never gave up perspective projection, ever seeing in it an objective means to reproduce his perception of the world, but he more than once attempted to reconcile participation and observation, or bodily immersion and visual control, through personal adaptations of the technique. A comparison with one of the likely sources of *Snow Storm*, Horace Vernet’s *Joseph Vernet Tied to a Mast Studying the Effects of a Storm* (1822), may give a good idea of the tensions at work in Turner’s evolving conception of space. Whereas Vernet chose to actually represent the perceiving subject within his composition, thus mediating the act of viewing, Turner’s elimination of all recognizable human figures, together with the ambiguous status of the represented boat – is it seen from another boat, or is it be understood as the center of the surrounding field of vision which Turner attempts to convey? – removes such a mediation and conflates viewing within the scene and viewing from outside. This makes it much easier for the viewer of the painting to identify with the viewer immersed in the actual storm, and justifies this pictorial wonder: the simultaneous presence of the familiar perspectival structuring of space, which conveys distance, and the much more compelling structure of the vortex, which draws the

viewer in. Turner manages to fuse the two together, without sacrificing the former for his new-found idiom. However, by breaking apart the constraints of a strictly linear approach, by bringing light, tone and texture into play, and by fusing the dynamics of a vortical visual field into the perspectival structuring of space, Turner evolves a conception of perspective adapted to the flux of the world and the flow of vision.

### **III. Perspective, motion and speed.**

Turner's dynamic understanding of perspective therefore dramatically transforms classical techniques in order to call the viewer and the artist from their static vantage points and to draw them forcefully into the pictorial space. This is perhaps nowhere as obvious as in *Rain, Steam and Speed* (fig.3), which carries through his reflection about the ability of perspective representation to convey motion.

As in *Snow Storm*, the painting is articulated around a split view point. On the one hand, an external view point is still implied in the composition, although quite implausibly suspended over the bridge and the Thames. The effect is particularly unsettling: the viewer, presented with an ambiguous position within the uncertain continuation of the pictured space, unable to imagine the reassuring contact of *terra firma*, is immediately drawn into the action. The dramatic foreshortening of the bridge suggests that the train is about to bolt deafeningly and blindingly into our close perceptual field. However, this has not happened yet, and it cannot convincingly account for the pervasive blurring of shapes that surrounds the much sharper representation of the train itself. Turner's habitual rendering of atmospheric effects, enhanced by his wish to convey rain and steam, is one likely cause of this contrast, as is his intention to oppose the dark metallic solidity of industrial production to the insubstantiality of the vanishing old world; but once again, what is at stake is the artist's reflection about perspective and the place of the viewing subject. Indeed, only a viewer located within the train itself would see the train more precisely than its

surroundings. The blurred rendering of the scenery from which only the train sharply emerges can therefore be seen as an attempt to represent the sensorial confusion of the traveler himself, and also to convey the dynamic perception of landscape as seen from a fast-moving vantage point. A contemporary anecdote, that a Lady Simons, seeing the painting exhibited in 1844, asserted that she had witnessed Turner's enthusiastic discovery of traveling by train in similar conditions, and reported his request to open the windows and to lean out for several minutes in order to better experience the weather and light effects, seems to bear weight to such an interpretation. As Gage points out, Lady Simons's claim that Turner had drawn her attention to the exact scene painted in *Rain, Steam and Speed* is contradicted by the fact that there is only one train track in Turner's painting, which excludes the possibility of the train being seen from another one coming from the opposite direction (*Rain, Steam and Speed* 16-19). However, the success of the story emphasizes the importance of Turner's effort to recreate the sensorial confusion of an immediate traveling experience. So, although the artist himself did not state his involvement in the scene depicted as he had with *Snow Storm*, the anecdote is in keeping with the pictorial and perceptual approach which was made explicit in that painting. In any case, it confirms that Turner's contemporaries understood the artist's need to physically experience the world he painted, and were aware of what was at stake in the painting: an original attempt to convey the visual (and to a certain extent tactile) impressions of the modern traveler, moving at speeds never before attained, and to deal with an origin of perception which could no longer be considered as static, but in rapid motion.

The split view point implied in the composition thus becomes a means to emphasize the dynamics of perception, even more dramatically than in *Snow Storm*: the strongly enhanced orthogonals of the bridge seem to propel the imagined viewer within the train straight from the vanishing point to some unknown space outside the picture frame, while at the same time they powerfully draw the external viewer into the pictorial space. One may then imagine a conflation of view points somewhere in between, although it is difficult to determine where. The internal view point has indeed been freed from the structural constraints that remain for the external beholder: whereas the latter is still manipulated by the laws of classical perspective projection,



being made to follow the bold orthogonals towards the unambiguous vanishing point that they lead to, the viewer inside the train may be imagined to be free to look around as he pleases. This encounter, between a static pyramidal structuring of perception, and an implied circular and moving field of perception illustrates a new conception of the pictorial space, still structured by perspective, but to be imagined as perceptively explored from within. This inferred immersion within the pictorial space is underscored by the unobtrusive presence of viewers of the train within the landscape itself: the tiny figures on the banks of the Thames, and the more explicit ones on the small boat to the left of the painting, also in motion, although at a much more leisurely pace. A multiplicity of dynamic view points is therefore implied, in order to explore the varied perception of the train's motion and speed.

Representing a fast-moving object within a painting (something which few painters had had to consider doing before Turner) therefore raises a series of questions about the position of the beholder, and Turner suggests several complementary possibilities: the frontal view of the external viewer, one can guess, will be very different from that of those who view the passing of the train from the side, or even from below on the banks of the river. Finally, none of these will have anything in common with the view from within the train itself, which seems to have been Turner's leading concern.

The other difficulty stemming from the choice of subject has of course to do with the nature of the pictorial medium, which Gotthold Ephraim Lessing, in his influential *Lacoön*, had distinguished from the verbal medium by emphasizing its static nature, as opposed to the temporality or consecutiveness of poetry.<sup>3</sup> Turner's achievement had a lot to do with the fact that he was showing which pictorial means could be used to convey not only temporality, but even speed. To this effect, the use of perspective projection is particularly effective here. The composition is clearly dominated by the prominent orthogonals which define the bridge. Even though they converge towards a vanishing point at the very center of the canvas, they contribute to an unstable diagonal structuring which overemphasizes the dramatic widening of the bridge

and consequently the dynamics of the train. This, added to the foreshortening effect and the imagined continuation of the bridge and the train tracks outside of the canvas, suggests that the train is about to cut out of the pictorial space, past the external viewer, at full speed. Finally, the most dramatic effect is probably the fact that the train seems to be still so close to the vanishing point and yet about to leave the picture plane, thus bringing together through its momentum two extreme points of represented space. Quite remarkably therefore, Turner manages to convey the speed of the modern industrial world through the use of classical perspective projection, which had been devised for more static and contemplative observations of the external world. However, for all his inventiveness and liberated approach to the technique, he is only making the most of it, without even introducing noticeable distortions. The underlying geometrical structure remains conventional, with the dynamics of the scene resulting essentially from tonal contrasts which strongly emphasize a diagonal axis, rather than from a re-structuring of the pictorial space. So even if Turner's wish to bring perceptual participation and motion into the representation questions the distant vision of classical perspective projection, the convenience of technical know-how eventually prevails.

## **Conclusion**

The three paintings analyzed here are striking examples of how Turner dealt with contemporary challenges to the classical perceptual model: the enlargement of perceived space entailed by theories of the sublime, the romantic need for physical immersion within, and interaction with, one's surroundings and, increasingly, the sensorial shock elicited by the dynamics of the industrial world. Faced with those challenges, Turner, as we have seen, chose to explore the whole representational potential of the technique of which he had such command, classical perspective projection, and to adapt it to new needs and stretch it to further limits, rather than to devise new pictorial structures. His approach is clearly emancipated from the strict geometrical understanding of the *costruzione legittima*, and integrates his preference for light and

colour over linear features, as well as his predilection for dynamic structures: in many of his paintings the rectangular frame structure is bursting at the seams under the pressures of vortices or ellipses which, as W.J.T. Mitchell observes, have fused themselves into the rigid perspective box (140,143). Nevertheless, Turner never discarded the familiar conventions for depicting three-dimensional space which had been part of his intellectual habits for so long. This may be because, contrary to a view which has prevailed since Panofsky's 1927 essay, perspective is not simply a convention "to be used or discarded by the painter as he chooses" (Gibson 227) but, as theories of perception have suggested, has an objective basis (Gibson 216-227; Gombrich 243-259); or, from the very different interpretation of semiotics, it is a "paradigm or regulatory structure," "the equivalent of an expressive apparatus or sentence structure", out of which pictorial expression is impossible, even in negation (Damisch 25-26). This necessity was keenly felt by Turner who, contrary to later artists, never questioned the validity of the pictorial space devised by Renaissance artists, even in the audacious work of his late years. However, through his liberated approach, he breathed so much energy into the "paradigm" that he allowed it to become the apt expression of the perceiving subject's dynamic interaction with the world, just as it had once been the adequate vehicle of a more static, distanced and rational point of view. He therefore significantly contributed to the renewal of perspectival representation, by revealing its full dynamic potential to match his intensely physical and itinerant approach to painting, and the increasing ocular mobility of modern viewers who yearned for a form of representation that would go beyond the arrested image of classical perspective projection.

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## Notes

<sup>1</sup> For all these reasons, the lecture material has remained unpublished, to the exception of the last lecture on 'Backgrounds', edited by Jerrold Ziff for the *Journal of the Warburg and Courtauld Institutes* in 1963. The notes can be found in the manuscript collection of the British Library.

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<sup>2</sup> From 1809 onwards, three days were granted to painters to give their exhibited work final touches in respect of the configuration and lighting of the Royal Academy exhibition. For Turner, this became the means to transform preliminary work into masterpieces “on the spot”, thus displaying his mastery as well as his original methods to the public.

<sup>3</sup> This is how Lessing compared the object of poetry with that of painting: “Although both objects, as visible, are alike capable of being subjects of painting in its strict sense; still, there is this essential difference between them, that the action of one [poetry] is visible and progressive, its different parts happening one after another in sequence of time; while on the other hand, the action of the other [painting] is visible and stationary, its different parts developing themselves in juxtaposition in space” (77).

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