An analytical study of John Ruskin's treatises on honesty in Architecture

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Abstract. Most critics of architecture agree that Ruskin has a positive impact on architecture just as he hurts it. His treatises are sometimes superficial, extremist, individualistic, and opposing one of them to the other, which led some critics to attack him harshly and stand against him. Ruskin lived in a crowded with different intellectual and sometimes contradictory climates and saw many thought, politics, sociology, science, and industry changes. Ruskin was only the victim of ideological dualism, which caused some of his treatises' contradiction and superficiality despite others' depth. Ruskin's theoretical aspect was not complete with the practical aspect because he never cared about applied arts. Ruskin represented what might be called "man of letters," interested in many diverse topics as the diversity of human life itself. The research aims to reveal contradictions, superficiality, specifically, those implied in the chapter of "Lamp of Truth," and try to return them to the duality of his ideology or the gap between theory and practice that he suffers from it or both. This research is not an attempt to seek excuses to Ruskin, but an attempt to understand his treatises, thus enabling the man not to be enthusiastic to all his treatises without discrimination for the reference of any of them and vice versa be entirely opposed. The internal view of Ruskin's thoughts enables a profit gained from those that are immortal, which makes him considered among the great philosophers and thinkers of different ages and eras.

1. Introduction
John Ruskin is considered one of the most famous critics and philosophers of the nineteenth century. His book "The Seven Lamps of Architecture" deals with the aspect of honesty in architecture in the chapter "Lamp of Truth," which makes up one of the seven chapters there. He dealt with a set of principles and values that must be adhered to and seen to avoid architecture's death; moreover, avoid the disappearance of its features (which follows the same laws related to man's life, ethics, and religious beliefs). Using Gothic architecture as proof and evidence. The importance of research comes from the importance of Ruskin as one of the prominent critics of architecture and the influence of his treatises, whose role can be highlighted in many aspects as follows:

- Laying the theoretical foundations of the tectonic approach in the 20th century and 21st-century architecture. (Although this credit does not attribute to him).
- He is raising the moral and academic aspects of William Morris (a Ruskin student), who was the modern movement's spiritual father.
• Pioneering many contemporary architectural critics' treatises interested in contemporary architecture's ethical function with its fundamentals.

If Ruskin's role in the ethical building of Morris and his followers and leading the ethical approach of the critics of architecture; is prominent and said, but his role in the tectonic theories of architecture is implicit and unspoken. That requires an analytical pause to highlight it, which would banish the ghost of "superficiality" and "exaggeration" attributed to his treatises by some architectural critics.

Research problem: The gap in Ruskin's treatises between theory and practice, which was a reason for his exaggerations on one hand and misunderstanding of several of his treatises (described by some critics of architecture as superficial) on the other hand.

Research goal: The research not aimed to bridge the gap between the two sides of theory and practice in Ruskin treatises -as may come to mind at first glance-but the following investigated:

• First: explain the theoretical role that Ruskin plays in contemporary architectural trends that did not refer to as being attributed to him.
• Second: to reveal paradoxes that make some of his statements at the level of principles not applicable to procedural treatises concerning reality and investigate the reasons that led to them.

The first goal confirms the depth and breadth of theoretical treatises. Simultaneously, the justification for exaggerating and superficiality of such treatises at the conceptual or procedural levels achieves the second goal.

The research problem addressed, and its aims achieved by:

• Adoption of Ruskin's thoughts on honesty as mentioned in his book "The Seven Lamps of Architecture," analyzing them, revealing the paradoxes of theoretical and practical discourse, and showing the role of the theoretical aspect in the future theorizing of architecture.
• Studied Ruskin's life and the atmosphere surrounding his era, which was why the gap mediated the two sides of theory and practice in his treatises.

Research hypothesis: It is possible to rely on Ruskin's theoretical treatises (at the level of principles) (which contribute to achieving a beautiful and honest contemporary tectonic architecture, in which eternity is one of its most prominent features) apart from his conceptual or procedural treatises (which could attribute to some of them as exaggeration or superficial or incompatible with the principle), which reflect political, economic, and social influences that were prevailing his era and affected him.

2. Introducing Ruskin
Ruskin was born in 1819 and died in 1900 and considered one of the most famous writers and philosophers of the 19th century, although he was not an architect; his writings influenced 19th-century architecture and early stages of 20th-century architecture; as well as being a theorist of contemporary architecture. Ruskin was interested in theoretical matters and took care of many fields such as politics, economics, arts, geography, geology, botany, and other sciences that included various aspects of life. In all his treatments, he separated from reality. However, his breadth of horizon earned him the ability to find different relationships between these fields of knowledge, which were not apparent to others who cared about one or two fields [1].

In 1860, Ruskin abandoned the entire architectural criticism and devoted himself to social reform by lecturing and writing about industrial problems, education, morals, and religion. Moreover, art became an occasional way to get a more spiritual life. Works of art are human acts with intellectual and moral values. He also turned to politics and suggested replacing capitalism with communism, and he influenced several personalities, including Gandhi and Mao Tse-tung. Ruskin's reform movement in practice was led by his student William Morris (1834-1896), who abandoned the machine and sought
to create an ideal society in which everyone was creative in art. Ruskin is one of the first social reformers to raise the slogan "Architecture is a moral art" linked to structural integrity and personal morality, which is evident in his treatises [1].

Ruskin has many books; the most important is "Seven Lamps of Architecture," which is considered one of his most famous books published in 1849 and included most of his ideas. The book divides into seven chapters. Each chapter includes one of the seven architecture lamps, which are: -Lamp of Sacrifice. -Lamp of Truth. -Lamp of Power. -Lamp of Beauty. -Lamp of Life. -Lamp of Memory. -Lamp of Obedience [2].

3. Ruskin's treatises in honesty as in "Lamp of Truth."
Ruskin focuses on the fact that laws relating to architecture are the same laws as those associated with life values, morals, and religious beliefs. He also rejected customary laws based on past architecture and accepted only laws linked to human roots or imposed by the materials' nature.

- According to Ruskin, the falsehood is relative, and its size depends partly on the person's nature to what he committed and partly on the degree of the consequences. Also, the falsify size is large if the degree of temptation is less, while the truth is absolute and has no degrees.
- Regarding the act of imagination: it can be thought that the imagination is deception, but in fact, it is not. At the same time, the act of imagination is the voluntary recruitment of absent or impossible concepts. The pleasure and uniqueness of the imagination are in its knowledge first and contemplation second (knowing its actual absence and its inability to achieve it at the time of existence or present reality). When the imagination deceives, it becomes madness. Thus, the difference in whether it is deception or not is in the fact of recognition [3].

3.1 Deceits and architecture
The definition of architecture, according to Ruskin, is: "The art that organizes and decorates the edifices created by man for whatever use, where seeing these edifices contributes to his mental health, strength, and pleasure." It is essential to distinguish between "building" and "architecture" because the building means that we put together and equally a few pieces for any edifice or container and size to consider. That is why we have a church building, a residential building, shipbuilding, or a train building. One edifice is standing. The other is moving, and the other is hanging on iron racks, which is not related to art's nature.

The building does not become an architecture once it is stable or supplied the occupying's required comfort. The architecture itself is concerned with the edifice's characteristics, which are nobler and superior to its general use. Ruskin says that we may not recommend beautiful, good, or innovative architecture, but we can recommend honest architecture.

Ruskin divided Deceits into Architectural Deceits, Structural Deceits, Surface Deceits, also, Operative Deceits [3].

3.1.1 Architectural Deceit. It is to propose a method of structure and support instead of the real way. Also, painting on the surface seems like another material, not the real one (making the wood look like alabaster) or the deceptive display of the inscriptions carved on it. It emphasizes that the use of the material within its legitimate parameters does not destroy the being itself. Simultaneously, exaggeration, repetition, and extravagance will degrade the work's worth and value, and it is against the integrity of the architecture.

Use deceptive means of any kind, including decorations made by machine or cast, which, thanks to their repeated doses, has lost its vision as deceit becomes a permissible means despite its falsification. An example of that gilding in architecture is not deception because it does not understand as gold in architecture. It is deceiving in jewels understood as gold; however, both cases are reprehensible [3].
3.1.2 Structural Deceits. Architects are not inclined to explicitly show the structure, as is the case with Ruskin, who does not complain because they concealed it. The outer surface conceals much of the anatomy of the human body. Nevertheless, the building would become nobler if the keen eyes could recognize the great secrets of structure, as is the case with the animal shapes. Another case is the Gothic roof (consisting of ribs that convey forces and a vault covering the roof). The reality of weightlifting matches the man's sense of weight transfer and power transfer so that dishonesty does not exist here. As for construction, Ruskin emphasizes the importance of reminding architects of the need to search for their art sources. For example, God chooses the architecture of animals in contexts that guarantee to attain the highest levels of strength shown by God Almighty with His will, where the perfection of authority meets perfection of convenience [3]. Research sees that statement predicts a tectonic trend in architecture at the end of the 20th century and the first two decades of the 21st century.

3.1.3 Surface Deceits. It means assuming some shapes or materials, which are non-existent, as in staining wood to appear alabaster or drawing decorations in tricky terrain. The danger in this is an attempt to deceive conclusively. one of the subtle and significant matters is; figuring out the point from which the deception began and the point at which it ended. Painting is not a trick. It does not confirm any material whatsoever (good painting, whether on wood, on stone, or as it is naturally assumed, on plaster makes the material, whatever it is, more precious.). While covering the bricks with cement and dividing it with joints to look falsely like a brick is a deceitful and despised approach.

Regarding materials, Ruskin divides architecture into two types. One of which is less durable than the other and decays over time, while the other (the noble type) has a high permanence (and maybe rightly called “true architecture”) resulting from the use of actual colors of natural stone, which does not lose its luster over time [3].

3.1.4 Operative Deceits. The final form of Deceits architecture is operative deceit, which means replacing the hand with the machine's work or casting work. Ruskin claimed that all casting or machining work is terrible. It also shows a lack of integrity [3].

3.2 Ruskin's opinion on the use of iron
According to Ruskin, the most form of corruption and decay that must be opposed is the use of iron, whose correct laws are not easy to decide. According to his previous definition, architecture is an art independent of its materials; Nevertheless, this art created in most cases from clay, stone, or wood with specific structural and proportional laws. The use of the iron structure will deviate architecture from the elementary principles of art. However, with the development of new architectural laws, the iron structure can be fully adopted. Iron becomes available in its quantity and means of dealing with it, as is the case with clay, wood, and stone [3].

Ruskin justifies that claim that the general feeling of the greatness and sublime of architecture lies in its historical use. Since this use depends on the suitability and conformity of style, it will be proper to preserve the precious materials and principles of the earliest times in the era of future scientific progress. That justifies his desire and sympathy to produce non-iron architecture. Ruskin relies on the fact that any idea that respects size, proportion, decorating, or construction relies on a prior bias for these matters; It is not possible to escape the impact of those prejudices. Thus, it can assume that authentic architecture does not allow iron as a construction material; iron roofs or railway station poles, and cast-iron staircases are not architecture [4].

It is evident that according to Ruskin's claim, these metals can be uses in construction with specific ranges, such as nails in wooden architecture, metal welding into stone, support for Gothic statues, and the tops of columns with solid iron fists. Ruskin also stresses that getting to know iron well and dealing correctly with it allows it to be used widely in the future without a significant shift in
architectural styles. Except for the difference in lightness and thickness of structural elements in using iron instead of cement or stone while resisting tensile forces and shear forces. In those cases, metal applications can achieve authentic architecture [3].

The research sees that Ruskin's hostility to the use of iron despite his belief in the necessity of using it reflects an apparent duplication in his reform effort. This duality puzzled many architecture critics and was a reason to make him the object of criticism by the others, who attributed to him the responsibility for cladding skyscrapers of iron construction with stones in the early 20th century.

3.3 Ruskin's opinion on decoration
Ruskin's definition of architecture shows an obvious bias towards decoration. Ruskin justifies this bias for two reasons. The first: its shapes' abstract beauty, whether it is a hand or the machine's product. Second: the sense of human work and the effort spent in the production of decoration. Diamonds are an excellent example of this, as they are outwardly nothing more than a piece of glass. However, guessing about the time spent searching for, along with the internal characteristics, is what gives them their distinctive value.

Despite his bias for decoration, Ruskin stressed the integrity of ornament. Arguing that every person should strive for integrity and avoid any false endeavor; Thus, it becomes the common law for all: "Leave your walls bare, but do not cast them as fake." Ruskin finds this law more mandatory than any other law; he stressed that this "lack of integrity" is the meanest and least necessary for decoration because it is not essential and overstated, but if it is a fallacy, it is mean. The permanence of any material is an important feature that outweighs its disadvantages (if any) and justifies its use even if it requires superior skill in dealing with it. However, it is the absence of a human act; not the material itself makes things worthless [3].

3.4 Ruskin's opinion on the machine
The deciding factor in figuring out the role of the machine or the role of humanitarian work in dealing with the material is the nature of the material itself; Stone is a material that is naturally supposed to be embossed by the hand, so we should not emboss it by the machine. It is illegal to use any artificial stone molded into a cast or coloring decorations made of plaster in stone colors. As for retractable or smelting materials such as steel, bronze, and clay, where they are routinely supposed to pour, it would be desirable to use them in this way to reach a valuable product. However, according to Ruskin, one of the influencing things that negatively affect the natural sense of beauty is the continued use of cast iron to be poured or fingerprinted decorations [2] [3].

The research finds this latest statement is consistent with what was said in his treatises about the Operative Deceits, although the rest of his statements here are not in line with that Deceits.

4. A critical view of Ruskin's treatises in honesty according to the critics of architecture
Critics' opinions about his treatises varied between supporters and opponents, as follows:

4.1 Eliel Saarinen's treatises on honesty in architecture in his book "Art and Architecture."
According to both meaning and form, Saarinen differentiates between true and false art, as follows: First, (true art): Where the true expression of the meaning and creativity of art form. Second, which Saarinen called it (truthful art): It is the sincerity of expressing the meaning and the acceptability of dealing with art form characteristics. Third, (untrue art): Does not express meaning and has a minimum of the art form. Fourth, (no art): It does not express and does not have any of the artwork's formal features.

Saarinen's investigations on honesty in architecture at the procedural level has two aspects: The means of expression and method of construction, stressing that the abolition of the construction behind false forms- that do nothing with both internal space organization and the method of construction- is a
sign of moral bankruptcy. This case was in many periods in the history of architecture when (amusement) prevails over (ethics) in the world of art [5].

According to research, his statement is very similar to Ruskin's treatises. Saarinen's consensus with Ruskin's views on honesty is not limited to this. It also extends to the belief of honesty being relative, linked to humans' purposes, and the sincere desire to seek it. That makes honesty both a matter of mental orientations and not set up laws followed by everyone alike.

4.2 Belcher's treatises on honesty in architecture in his book "Essentials in Architecture."
Honesty is a fundamental principle in architecture achieved when architecture is in harmony with moral, aesthetic, and structural laws. It requires the designer not to make architecture appear as if it were something else. That includes several layers that are:

- Appearance: The material does not appear as if it were another.
- Characteristic: The characteristic of the building must be sincere with the purpose.
- Construction: The construction is not hidden or looks as if it was another one.
- Materials: Materials in architecture should choose according to both honesty and convenience considerations.
- It is not sufficient for the building to be just strong and honest, but it must appear healthy and safe.
- The support and resistance methods must be easy to perceive and well-defined, and convincing to the beholder.
- The building should not appear with a scene that conflicts with the natural structural forces; otherwise, it will not be true [6].

The research sees Belcher's treatises are consistent with Ruskin's treatises at all points mentioned except the last point. Where the appearance (according to Ruskin) conflicts with the actual transmission of forces in response to dramatic effects that the recipient knows truth and purpose of, does not deny the character of honesty from a building.

4.3 Bruno Zevi's treatises on honesty in architecture in his book "Architecture as space."
Bruno Zevi criticizes Ruskin's rigor in dividing architecture into two true and false types. There are no gradations between them (this is contrary to Ruskin's previously mentioned theses that falsification is relative as research sees). Zevi also stressed in his treatises that honesty in architecture should be a matter of trends- controlled by the convenience that is far more important for him than structural integrity [7].

So, the research finds here the implicit approval to relativism was referred to by Ruskin.

4.4 Martin S. Briggs's treatises in his book "Architecture."
Briggs criticizes Ruskin's treatises in two aspects: firstly, his interest in decoration rather than form and structure, which Briggs considered the basis of architecture. Secondly, his assumption that architecture is an exclusive reflection of prevailing social conditions; made Ruskin view Gothic Architecture as morally acceptable and Renaissance Architecture as an iniquity. That does not prove by the history of architecture, which writes down that social conditions influence architecture and not all the influences [8].

4.5 Mamlin Talbot's treatises in his book "Architecture: art for all men."
In his book, Talbot also criticized Ruskin's one-sided view of architecture, which was limited to decoration and adornment, blaming him for what the architecture had reached later. In his refutation of Ruskin's treatises, he has relied on two pillars. Firstly: decoration is only one element of architecture,
not all elements. Secondly: poverty, destitution, and deprivation (which are the result of the industrial revolution, which Ruskin justified for resorting to decoration) are design incentives (not design determinants) that inspire the designers and make them face difficult and complicated tests that require more profound and more fundamental solutions [9].

The research finds that the conflicting of some of Ruskin's statements between the theoretical and operational levels is a significant justification for criticizing his treatises by some critics of architecture.

5. The inner and outer view of Ruskin's treatises

To verify the research hypothesis, the eternal principles and values advocated by Ruskin must condense in addressing the research to the inner view of his treatises. Also addressing the political, economic, and social influences (that Ruskin was affected by) and went with his era through his treatises' external view.

5.1 The inner view of Ruskin's treatises

- The aspect of honesty linked to integrity in architecture: architecture must not lie.
- Imagination does not adversely affect honesty in architecture if it is explicit, declared, and unattainable now.
- Honesty in architecture is positively related to respect for the nature of the material and the amount of work.
- Honesty in architecture engaged three levels:
  i. Construction level: The honest building is intelligible and structurally enjoyable. Structural deception occurs when the building looks more potent than it is or when the structural system is different from what it is [2]. The research finds this is in line with the future tectonic trend in architecture.
  ii. Surface level: Related to both material and decoration. Covering the building with a false material is one of the causes of surface deception, as Ruskin pointed out. Another reason for the deception is treating a material to look like another and employing carved representation decorations deceptively.
  iii. Procedural level: Architecture is deceptive when it involves the harnessing casting or machine work to give the impression of manual work in decorations or other works in architecture [3].

Ruskin's treatise is inconsistent with Frank Lloyd Wright's later thesis, using the machine to produce an ornament that resembles a handcraft [10].

- Architects should reveal the secrets of the structure to the smart eye [3]. According to research: This is a prerequisite for the tectonics of architecture.
- Constructing a simple utilitarian building if they cannot decorate it properly, considering the appreciation of the materials spent and the manual effort exerted [3]. The research sees this implies openness to all architectural trends if employing the specific approach is justified.
- Exaggeration in style also the use of one material to look like another. and dealing with material in the same way as dealing with other material or not investing in the efficiency of using a substance in a specific treatment - or replacing the material with a substance with lower efficiency, or not investing the specific properties. All of these are signs of deception in architecture [3] [4].

According to research, the items above draw the characteristics of the moral orientation of contemporary architecture.
5.2 The outer view of Ruskin's treatises

The industrial and political revolutions at the beginning of the nineteenth century, which coincided with the scientific revolution, gave birth to both the classical inspirations that represented the revival of the styles of earlier times. Furthermore, industrial civilization requirements, such as railway stations, exhibition halls, workshops, and factories. Furthermore, eclecticism stood as the perfect expression for the newly rich who not educate at that time [11].

The result was overwhelming chaos. The ideas of economics and utility produced ugly factories, on the one hand, and ideas of uniqueness, which produced a product of wealth, on the other hand. That is what made the cries of the sensitive critics- led by Ruskin- raise demand to end the new industrialists' cruelty and greed. Ruskin was excited about decoration (especially the representative one) for religious reasons: it is more than decorating. It is a form of worship; its appeal is moral as it is aesthetic [11].

In a lecture given by Ruskin in front of the Royal British Architects- formed in 1834, Ruskin said, "Excuse me if I speak desperately. From my side, I feel the power of the machine and the madness of the trade. If I give myself the right to look for the best way to give bread and water to all, it seems that there is no other solution than the grave of these works [9]."

According to what research sees, although Ruskin was truthful and right in his strict claim, he had promoted one aspect of architecture limited to the scope of decoration and ornamentation. However, his actual dealings with architecture included several more rich and essential aspects. The research also finds it a resounding cry in the face of the austerity and reduction in the Industrial Revolution architecture. This enthusiasm for decoration did not rise to the level of the principles he developed for architecture, which, according to Ruskin, included seven principles named the seven lamps, which his book "The Seven Lamps of Architecture" consisted. The one who examines this book with its seven chapters touches on Ruskin's authentic view of architecture as a set of principles and values that diminishes decoration's role if it does not disappear.

The French Revolution also stands in Europe's history as a well-established sign and its influence to include philosophy. In the wake of the cultural shock of the revolution, three socially diagnosed tendencies appeared. Firstly, the positivist philosophy's knowledge socially represents the philosophical reform of the people who thought. They form a social stratum closely related to the bourgeoisie that began to expand rapidly with industrialization development). Secondly- Marxism is associated with the working-class movement. And thirdly- The trend of small utopias (the small or petty bourgeoisie) [11].

These three trends differ in European thought about society's idea and their contradictory opinions regarding technology and progress. Where the bourgeoisie and the small bourgeoisie tend to look at science independently of social life; It addresses issues related to the interaction between science and society as if they were separate worlds, and the difference between the bourgeoisie and the small bourgeoisie lies in their views on the changes brought about by science.

While the first regard it as something very positive, the small bourgeoisie viewed it as a negative thing that included a threat related to the old agricultural and artisanal community and opposed rapid industrialization against scientific and technological developments [11].

According to what research shows, it can say that It is possible to approach Ruskin's thought and understand it: if we know that he was a representative of the small bourgeoisie. Furthermore, he was against technology as it takes human prospects towards dangerous pitfalls, such as atheism and the cruel worldly.
In one of his most beautiful protests, Ruskin voiced Christians and spiritualists' fears about the blind pursuit behind the glamor of scientific-materialism, anti-moral, and anti-spiritual. He had no choice other than to shout and protest geologists who, day after day, were exploring new geological times and eras that contradicted in no small extent the kinetic concepts of the literal Bible. Ruskin felt the impact of their hammers, as they pored over the pillars of his religious faith: "If only they would leave me alone, I would have been in the best condition, but, those terrifying hammers, I hear their knock at the end of every station of the Bible verses [12]."

Ruskin adopted this general thought that governed his view towards religion and history because history has a permanent movement that expresses God's power and will. The same is the case with his view to the future, which expresses God's strong will that created the universe and will end it when God wills, and a person's journey in it is no more than a pilgrimage journey between birth and afterlife [12].

See figure 1. that summarizes the findings of the research.

6. Conclusions and Recommendations
The ideological climates that crowded the 19th century and Ruskin's adoption of one of these climates (which is the climate of the small bourgeoisie) justify many of his reactionary thoughts in his rejection of science in general and his apparent refusal to use new materials. His separation of architecture from construction (negatively affected architecture's progression from the nineteenth century until the beginning of the twentieth century); thus, he is the son of his ideology.

Looking at Ruskin's treatise that dealt with honesty in an internal view, independent of reality and its ideologies, also; independently of history and the outlook on the future: it can find it to be of great importance in dealing with fundamental concepts such as honesty, deception, drawing, material and dealing with it. It reflects an honest and mature conscious thought (it does not meet in any way with the reaction in which he deals with reality, which counted against him). It also reflects eternal values and exceptional genius, which places Ruskin in the ranks of the great philosophers such as Aristotle, Plato, and others whose treatises have always been an inexhaustible source that those, with intellect and minds, draw from in every time and place.

The revelation of Ruskin's treatises strengths through this analytical pause (the subject of the research) helps contemporary architects adopt the principles advocated by Ruskin that can describe as immortal-especially in the field of ethics.
In his treatise, Ruskin set up the foundations of contemporary tectonic architecture. So, this requires contemporary architects to understand his proposals optimally, enabling them to deal with both the diversity of construction techniques and the diversity of materials with integrity, away from the falsehood and deception that can be easily achieved by this vast amount of diversity.

Contemporary architecture can restore the beauty and integrity that some designs have given up for the benefit of cost and utility through the creativity of architects who respect the Ruskin principles, which have been and continue to be an inspiration to many of them.

The research recommends that contemporary young architects not adopt certain treatises. Moreover, it becomes a guideline in their architectural practices; without carefully investigating, analyzing, and exploring the circumstances that crystallized them -to verify their reliability- warning against blind submission behind all the prevailing thoughts of their era.

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