



مقال  
بحثي كامل

## Sustainable Popup book for sustainability and children Identity.

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### الملخص:

The research here has three main pillars: identity, sustainability, and design. By examining these three axes, it becomes apparent that they are opposite; identity is not sustainable because sustainability is defined by materials rather than values. However, the design is the connecting element when considering the third aspect of the research. The term "design" here refers to the field of popup book art design and the connection between identity and sustainability through this element's creation to demonstrate identity and its content to demonstrate sustainability, as well as how it differs amongst types. In this study, the researcher discussed several models composed of various ores, the most significant of which is paper ore, one way to promote environmental sustainability. Overall, sustainability strategy involves design thinking, focusing on finding long-term solutions to changing circumstances. The three components of sustainable design are also present in the field of popup book design, namely, reduce (which is reducing the amount of new materials used in book creation). Reuse (using the book's materials again). Recycling (books can be made into other things). As for the popup book's quality, its topics are derived from characters, backgrounds, and symbols that are associated with identity and heritage, giving it a unique intellectual value. The significance of this study is due to the mention of how the original values and notions of Egyptian Arab identity are established in a child's mind attractively and thoroughly from a young age. It is portrayed in the pop-up book because of its particular nature in narrating the information, and on the other hand, to strengthen the concept of sustainability by guiding how to manufacture.

Sustainability – Identity – Pop-up book – citizenship.

الكلمات المفتاحية:

**Introduction:**

It is the responsibility of society members to preserve their identity, and in doing so, they work to resist any variable that threatens their identity. As a result, the artist's role in this crucial subject is addressed through his artwork.

However his role is not limited to that, though; in recent years, there have been numerous calls for a more sustainable way of thinking because the world is facing multiple threats and issues due to the overuse and waste of the environment in general.

Art is society's language, and it is the artist's obligation to convey his challenges. He is frequently held responsible as one of the parties involved in finding solutions. So, how may one of the arts branches (the book design) contribute to preserve the identity and even the concept of sustainability?

So, through this study, the researcher draws attention to the design of one of the cut-out book types, the pop-up book, not only because it is a stunning work of art but also because it goes above and beyond its function as a contributor to solutions in the topic of sustainable identity.

This is on the one hand and the other hand, it is the most significant being focused on the child (within the age group of five to ten years) where formation and upbringing. How can a child of this age be aware of the magnitude of the issues confronting his or her current society? For example, the Arab child has several concerns about his or her Arab unity.

If we go deeper into specialization, we discover that the Egyptian Arab child is concerned with a variety of societal environmental issues, so it is worth noting that the quality of the book submitted to this child differs significantly from that of the foreign child, so the popup book in all of its forms has come to play an increasingly important role.

**Research problem:**

Globalization is more than just an economic and political phenomenon; it has a definite impact on the arts, where it entrenches the idea of roaming and the potential of abandoning roots, negating any historical environmental foundation for action, not only that, but also the negative effects of technology on our children.

The artwork must emphasize the concept of identity by using motifs that focus on what is shown to children, particularly those aged 5 to 10 when preparation and building are involved. So, here comes the obligation to identify how the book is designed, which requires addressing the topic of paper engineering through the use of the concept of environmental or green art.

**Research hypotheses:**

- Does it contribute to create sustainable popup books affirming design identity?

**Research objectives:-**

1. The research in general intends to highlight the role played by the design of the popup book, where the meaning of identification can be entrenched in the child's conscience, as well as the concept of sustainability of how to manufacture.
2. The research aims to highlight the importance of the role played by the arts in society. An artist who is merely a member of his society has the mission of communicating his issues.
3. Emphasize the deepening of identity thinking through various forms of art.
4. Finding innovative solutions that demonstrate sustainability thinking through pop-up book design.

**Importance of the research:**

Globalization threatens societies and peoples, negatively impacting children's identities. Therefore, the purpose of the research is to emphasize the intellectual content of the book's design, which is generated by the visual notion of communicating society's issues of sustainable identity.

**Research methodology:**

The study uses the analytical descriptive approach, in which several works illustrating popup book designs for various nations are presented. The researcher then analyzes and describes each work to show how the book's design is connected as an aesthetically pleasing form that appeals to children. With information related to identity and how to emphasize the idea of sustainability using the book's production materials.

**Search Limits:**

Time limits: - Encompass the period from the late 20th century, specifically the early 1990s, to the present.

Spatial boundaries: - Spatial borders for research include the selection of a number of models for different countries around the world such as America, China, France, England, and Egypt.

**Identity:**

There are many ideas and expressions in every field which discuss identity directly or indirectly. Therefore, addressing the notion and meaning of identity is no longer the latest of its kind in the world. This is due to the crucial role of identity in our lives.

Identity is the source of both the individual and the collective self, from which the roots of the constants are established to form society, resulting in the differences that set one society apart from another.

When an individual's identity aligns with that of his or her community, a sense of belonging and pride emerges.

When alternatives are multiplied, identity is analyzed to make it meaningful and purposeful, as it has a fundamental relationship with an individual's intellectual beliefs and attitudes. The identification, consistency, and continuity of personality are all profoundly affected by it.

**Identity in art:**

Through art, society often examines factors that determine personal and societal identity through the work it produces to represent the identity of individuals, society, or the nation.

They examine stereotypes and norms while exploring characteristics like race, nationality, and heritage. Our culture is affected by a variety of artistic and social endeavors, including technology, politics, manner, music, performance, and the arts. Critical artistic studies have shown that periods of prosperity or decay that pass through peoples are recorded in some way across different fields of the arts to create an integrated record that complements each other and reflects the conditions of this society, and cannot otherwise express a society or other people in different conditions.

Difference is the foundation of people's identities, and the existence of identity in works of art is a driving force in contemporary art, intersecting with other concepts such as citizenship, belonging, and association.

The expression of heritage and identity in visual art is achieved through a visual balance that combines memory and the idea to create creative material with an emotional impact. This balance combines creativity, skill, and innovation from a visual sign like embroidery, decoration, images, and occasionally how to use color. In general, art's manifestation of identity is a revival of spirit within that work, which differentiates it.

The first thing that comes to mind when we think about the topic of identity and art is the interaction between art and identity, and it is important to note that the identification identity of any culture is limited to all of the cultural products generated and accumulated over time.

The cultural, philosophical, and intellectual legacies and ideals of the nation with which an individual interacts produce a distinguishing element of his personality, which is mirrored in all sectors of culture, literature, and arts.

Identity and art are one existential reality, parallel parts of an individual's psyche and society that are unique and distinct. Therefore, there is no identity without art because art is a constant language that is the foundation of the nation. There is no art without identity, which establishes the subjectivity and specificity of the people. As a result, art is an inseparable component of the country's cultural history, distinguishing it from other nations.

#### **Sustainability in art:-**

Sustainable art can be defined as every work produced taking into account its impact on its environment. Therefore, the concept of sustainable art is broader than confined to a single image or confined to a particular field of art.

Art has a significant environmental impact. It is a gateway to making change and creating environmental awareness, which helps to create an environmental positive impact through art through proper interaction with the environment and its ore, or at least by trying to minimize the negative impact that man has had over the years on the environment.

The global sustainable art movement has demonstrated how it aids in conveying the artist's message, regardless of its nature, while also safeguarding the environment. Some people may think that digital transformation would reduce the environmental impact of art on nature. The process is more complicated because digital works need energy, which is a byproduct of the digital process used to create and distribute them.

For example, many artists use encryption to protect their rights and prevent their work from being illegally duplicated and transferred, using a code known as Tax File Number (TFN). This process is exceedingly complex, requiring network-managed processes in several regions of the world, resulting in significant energy consumption and CO2 emissions from cryptography.

As a result, it is evident how vital sustainable art is, prompting us to ask what sustainable art is to provide an answer. It is the creative discipline of creating environmentally friendly artworks as well as works that address concerns like climate change, waste, and social issues.

Sustainable art is not a constant set of rules but a sophisticated and adaptable way of thinking about what it means to make art. This includes the use and reuse of recycled materials, extracted

or executed materials, sustainable materials and processes, as well as work with a sustainable mission.

The term sustainable art is frequently used in conjunction with green art and environmental art, where environmental artists use recycled materials in their practices and often try to make their studio practices sustainable by using renewable energy sources and environmentally friendly materials, or at the very least using energy-efficient methods to create their work.

As a result, art and creativity play a vital role in society and sustainability. For example, art can increase awareness of environmental challenges and the significance of people taking action through visual arts and other creative forms, encouraging innovation and thinking beyond the box.

Art and creativity are crucial elements of sustainability as they enable us to connect with nature, comprehend the consequences of our actions, and uncover innovative solutions to our issues.

Many artists embrace the concept of sustainability by reusing materials that have successfully served their original purpose. Through creative thinking, these artists breathe new life into neglected elements such as cardboard, bottles, and fabrics, thereby exceeding their original usefulness to create visually stunning and conceptually rich works of art.

This limitless natural practice emerges not only for creative purposes but also as a tangible example of how reimagining the use of everyday materials contributes to the development of a more sustainable and environmentally conscious art scene, transforming art into an environmental messenger.

#### **Pop-up Book:**

Numerous studies and sources addressed the definition and explanation of what a pop-up book is, but in this study, the book emerged from an alternative point of view. We will discuss a pop-up book as a simplified applied example of sustainability by referring to materials used in pop-up books that are mostly based on hardware paper, rather than trying to define it in absolute terms.

As these books are meant for children, it is necessary for all materials used in the production of the pop-up book to be environmentally friendly. The notion of sustainability is based on this essential premise, which is one of today's most pressing challenges because of the destruction of the environment.

This is from one perspective, but the child who prepares for the future is the target audience for this kind of book. For this reason, it is crucial to study how to teach children values that are most important in order to preserve the environment in an engaging way (how the pop-up book works).

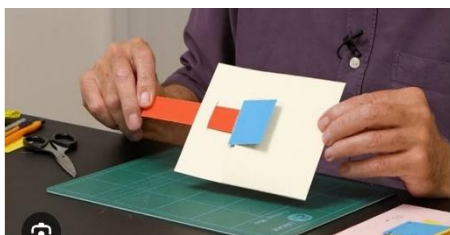
Not only that but the development of the meaning of identity in the child's depth through the visual drawings contained in the pop-up book, where the research focuses on models of the pop-up book that represent the identity of the place and the characters (this is what the research will address in detail by presenting some models).

The pop-up book, which has three-dimensional pages and elements that appear when you turn the page, is based on the element of surprise, which is crucial for drawing a child's attention and enabling the recipient to see more realistic situations during the reading process. The term "pop-up book" is used as a general term for the idea of a pull-tabs, pop-ups,

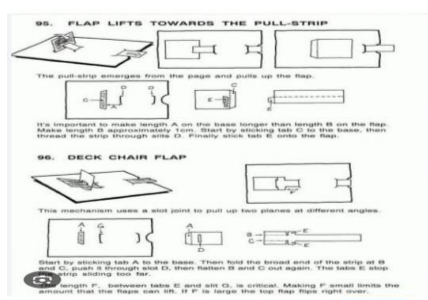
flaps, pop-outs, tunnel books, volvulus books, transformations, pull-downs, movable books and many additional labels that represent the presence of a movement in the book, the name of which varies depending on how it moves, but all share the trait of being non-traditional books. The design and creation of such books in the arts is also sometimes called paper engineering.

**the different types of pop-up book depending on how it moves:-**

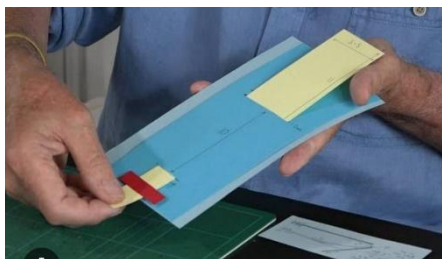
#### 1. Pull-tabs book:



figure(1)



figure(2)



figure(3)

#### 2. Pop-ups book



figure(4)

#### 3. Flaps book



figure(5)

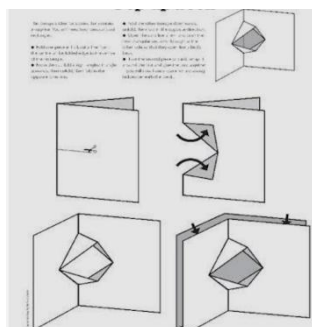


figure(6)



figure(7)

#### 4. Pop-outs book



figure(8)

#### 5. Tunnel books



figure(9)

## 6. Volvulus book



figure(10)



figure(11)



figure(12)

## 7. Transformation book



figure(13)



figure(14)

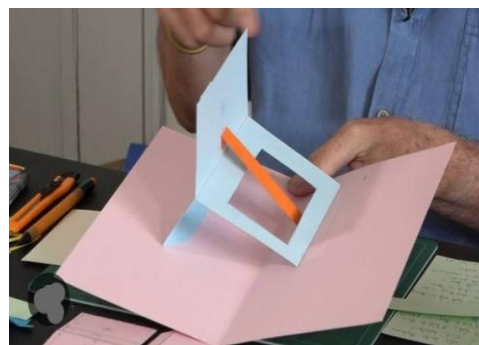
## 8. Pull-downs book



figure(15)



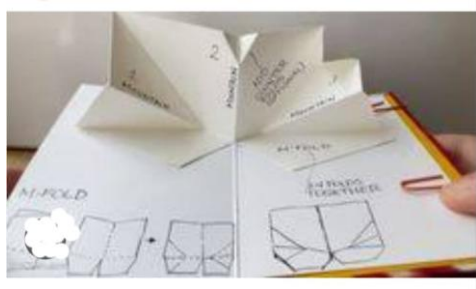
figure(16)



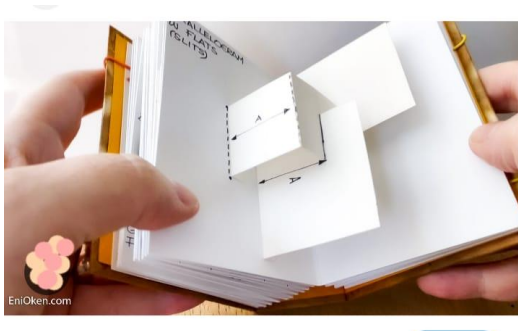
figure(17)



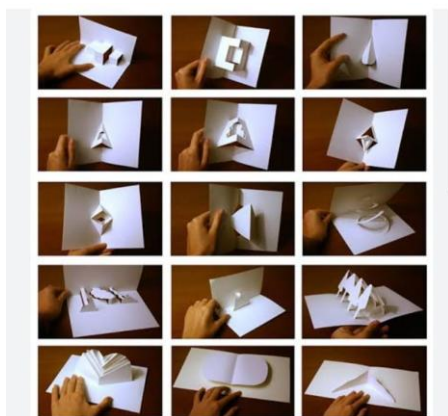
## 9. Movable book



figure(18)



figure(19)



figure(20)

Animated books have always been used as learning tools and sources of entertainment. Centuries before such books became popular for children's education and entertainment, toys, pop-up books, and uplift able books were found in church, medical, and scientific writings from the 13th to the 17th century.

Early animation books, designed specifically for scientific tasks such as astronomy, anatomy, religion, mathematics, or navigation, often used spinning disk devices.

However, by the late 18th and early 19th centuries, there had been a rise in the manufacture of books that combined learning, reading, enjoyment, and play, as well as improvements in how to design them so that youngsters could connect with concepts through touch and sight.

Animated books peaked in popularity between the mid-nineteenth and twentieth centuries, and their popularity fluctuated, but pop-up books are now a leader in interactive

media or some type of playable media and reaction. Given the significance of this type of book, the issues discussed in it have the potential to instill the roots of identity in children.

**The researcher now examines different models of pop-up books including innovative thinking to demonstrate the concept of sustainable identity:-**

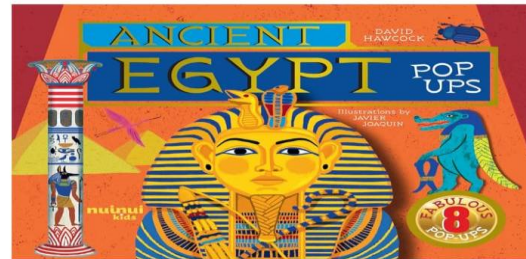


Figure (1) book cover



Figure (2)) One of the book's pages



Figure (3)) One of the book's pages

### Book Definition:

- Book name: ANCIENT EGYPT popups.
- Material: cardboard colored paper varies in thickness.
- Artist: David Hawcock
- Age range: suitable for kids from 4 to 9 years old.
- Language: English
- Publisher: Nui Nui 13-2-2024

### Analysis:

- The book is made of 16 pages with designs that portray the Pharaonic Egyptian civilization. Given that the piece is intended for a child, the artist chose colors that reflect the Egyptian Pharaonic civilizations.
- There was no realism to a large extent, and using the artist to symbols of Pharaonic civilization in this book worked to establish Egyptian identity attractively for the child realizing the concept of Egyptian identity, and through the use of paper engineering technique, the artist worked on the idea of showing the idea of work attractively for the child.



Figure (4) book cover



Figure (5) One of the book's pages

#### Book Definition:

- Book name: Wang Forbidden City pop-up 2020, designed by Wang Wei.
- Material: Cuttings of cardboard and other ores.
- Country: China

#### Analysis:

- Publisher: publishing house of electronics industry
- This book has seven pages, each up to three meters long, and offers information and stories about a Chinese city.
- Using the pop-up book style, the artist attempted to clarify this information engagingly.
- The page designs demonstrate how the artist retains the place's identity by representing the architectural surroundings in their true colors and forms.

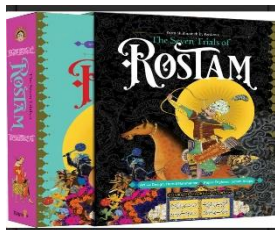


Figure (6) book cover

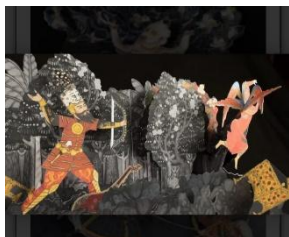


Figure (7) One of the book's pages



Figure (8) One of the book's pages

#### Book Definition:

- Book name: The Seven trials of Rostam 2021
- Paper Engineer: Simon Arizpe
- Art and Design: Hamid Rahmadian
- Publisher: Kingorama/ Fictionville studio
- Material: cardboard

#### Analysis:

- The book tells the story of an Iranian tale, which inspired the designer to utilize a variety of pop-up book styles to depict the King's wars and travels.
- It also clarified the intellectual content of the book by highlighting various elements such as the personification of the heroes' surroundings, the design of the characters and their clothes, and the color scheme that expresses the work's identity.

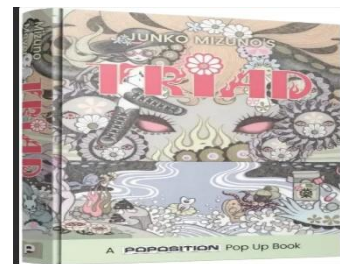


Figure (9) book cover



Figure (10) One of the book's pages



Figure (11) One of the book's pages



#### Book Definition:

- Book name: Junkomizuno's Triad pop-up book 2016.
- Paper engineer: Rosston Meyer
- Publisher: opposition press
- Material: scraps of modified hardened paper and wool yarn

#### Analysis:

- The artist expressed Japanese identity here by embodying the best three characters The Nurse, The Witch and The Wrestler, with five pop-up spreads reworked from Junko's original art ocean, serpent, Triptych, mansion and tree. Using the color element to confirm the meaning.

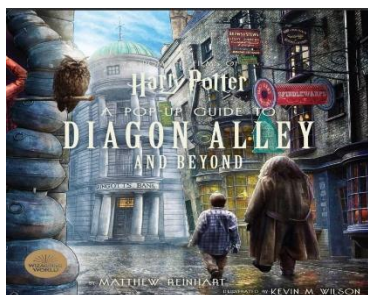


Figure (12) book cover



Figure (13) One of the book's pages



Figure (14) One of the book's pages

#### Book Definition:

- Book name: A Pop-up guide to Diagon Alley and Beyond 2020.
- Paper engineer: Matthew Reinhart
- Publisher: Insight editions (US)/ Transworld (UK) illustrated by Kevin M.Wilson
- Material: Cardboard

#### Analysis:

- The book has a variety of stories, and the book's pop-up format helps to embody these events in an intriguing three-dimensional style.
- The artist used to represent the location of the architectural background work identity (Britain) in addition to people's uniforms and photographs from the daily street, utilizing the actual colors of the area.



Figure (15) book cover



Figure (16) One of the book's pages



Figure (17) One of the book's pages

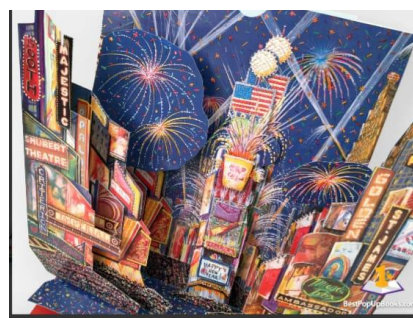


Figure (18) One of the book's pages

#### Book Definition:

- Book name: Christmas in New York a Pop-up book.
- Author: Chuck Fisher
- Paper engineering: David Hawcock
- Cover design: Joel Avirom
- Publisher: Bulfinch press 2017.U.S.A
- Material: Cardboard

#### Analysis:

The artist here expressed the identity of the content through the use of the architectural background of the country (USA) (New York) and the manifestations of the celebration of the New Year and the rituals therein and emphasized this by using the color collection already present in the region, in addition to the features of the characters and their costumes, giving the work an identity that distinguishes it from others.



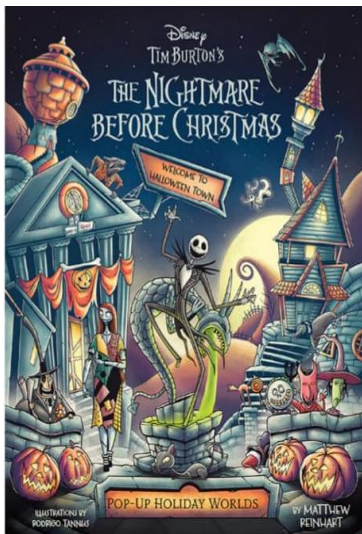


Figure (19) book cover



Figure (20) One of the book's pages



Figure (21) One of the book's pages

**Book Definition:**

- Book Name: Disney Tim Burton's The Nightmare Before Christmas pop-up book 2024.
- Author: Maltheu Reinhart
- Illustrator: Rodrigo Tannus
- Material: Cardboard

**Analysis:**

- The book's cover design shows where it belongs. The artist used the White House gate as an architectural backdrop, bolstered by symbols signifying the Halloween celebration.
- In addition to employing the color element in backgrounds and characters to communicate identity, the theme of sustainability has emerged through the material made of the book.



Figure (22) One of the book's pages

**Book Definition:**

- Book name: We are Tiger Dragon People Series 2017 pop-up book.
- Illustrator: Colettefu
- Material: Scraps of paper

**Analysis:**

- The artist in this book relies on the presence of real-life figures from the area's residents to represent the place's identity.
- Some artistic touches were added in the background to enhance the work's attractive outcome.
- This book contained historical knowledge, which the book's style helped to highlight.

**Results:-**

1. Focus on enhancing the concept of identity through many art forms, represented by the research topic Art Design Book, including the pop-up book.
2. Environmental research is critical for identifying values and meanings that are relevant to society and the environment. Its role is not limited to one area, but rather demonstrates how many fields interact and complement one another (for example, the research here is based on three axes: art is represented in the aesthetics of pop-up book design, sustainability, and identity).
3. The artist's direct use of identification and heritage symbols in his works of art illustrates his understanding of the significance of his intention to develop the recipient's sense of identity. The researcher showed several models demonstrating how to construct a pop-up book using a variety of features (such as character design, background, color, decoration, etc.), giving each book a unique character.
4. The concept of sustainable art extends beyond a single image or a specific sector of art.
5. The artist's ongoing interest in environmental issues motivates him to be creative in finding solutions, but in ways that are outside the boundaries. The research here addressed one of the biggest problems of the day, namely the concept of sustainability through the art of pop-up book design and its various forms, as well as how it functions in a creative manner that is most prominent in the context of sustainability.

**Recommendations:-**

1. Work to increase the manufacturing of pop-up books due to their importance in children's education in an easier and deeper way. Education here is about more than only the intellectual value of the book, but also about the engineering behind its creation and the concept of sustainability.
2. Support technical and critical studies on fine art and create fresh additions concentrating on identity issues in general and self-identification in particular.

3. Be wary of the adverse impacts of globalization on the merging and interaction of cultures, thereby shifting the notion of artistic identity in various directions.
4. Aligning identity requirements with modern artistic innovations.
5. Carry out comparable studies across the Arab region and analyze the degree to which Arab identity is reflected in the works of Arab artists while embracing the concept of national Arab identity to address contemporary challenges.
6. All members of society, regardless of their field of specialization, are nevertheless responsible for protecting their identities.

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