SUSTAINABLE ENERGY FOR ALL BY DESIGN
Edited by Emanuela Delfino and Carlo Vezzoli

Proceeding of the LeNSes Conference, Cape Town, South Africa
28-30 September 2016

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Sustainable Behaviours and Energy Savings: Movie Design Projects for Promoting Good Practices

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ABSTRACT

The topic of energy saving is closely related to the issues of food and water waste. The fact that producing one kg of chocolate costs 24,000 liters of water gives the idea of the extent of the issue. Dealing with sustainable practices, the struggle against food waste is a priority. Social communication is one of the tools that can urge people to consider different approaches to food, with a dual objective: on the one hand they inform on the extent of the issue; on the other, they sensitise individuals, pushing them towards more responsible practices in terms of consumer behaviours and food consumption.

This contribution presents the methodologies used during a didactic experience in Communication Design degree course (Politecnico di Milano). The tools of Movie Design and audiovisual storytelling are employed to teach how to design social communication campaigns, offering students the possibility to become influencers within their social network.
1. THE CONTEXT: THE MOVIE DESIGN COURSE

This contribution stems from the didactic experience conducted in the Movie Design course, with second-year BSc students in Communication Design, School of Design, Politecnico di Milano. The Communication Design degree course deals with projects that cover communication in all the different specificities of the field: packaging, graphic design, audiovisual, corporate identity, branding, synaesthesia, interaction, game, transmedia storytelling and more. Albeit addressing the communicative artefact focusing on a specific field of study, some studio courses (laboratories) deal with design from the perspectives of sustainability and social innovation. The experience presented in the following, and involving the second-year BSc students, belongs to the vast field of Social Communication, which represents an important asset in the conversation on issues of social relevance.

1.1 Research and design field: Social Communication

The social communication topic is closely interwoven with sustainable behaviours, and it is characterised by the presence of two different perspectives: social communication and communication for social innovation. The two aspects differentiate in relation to the context of use in which they are applied and employed.

- Social communication refers to the set of communicative practices aimed at raising awareness and sensitising the audience, be it generic or a niche. Social communication campaigns have the final purpose of influencing habits, pushing people to change existing and stereotyped behaviours. For example: campaigns for safety in construction sites, for organs donation, for car sharing, for environmental safeguard. They are communication campaigns that use advertising methodologies in their design process, even if the message they transfer strongly differs from the ones produced for commercial purposes (Galbiati, 2012; Gadotti & Bernocchi, 2010).

- Communication for social innovation, on the other hand, results as a set of tools aimed at applying the communicative protocols and strategies to participatory contexts, characterised by the need to activate a dialogue with the stakeholders, the citizens, and all the actors involved in the process. The objective is to produce shared visions able to facilitate and prompt social innovation processes (Galbiati & Piredda, 2012).

Albeit with different methodologies and tools, both the two approaches above share the same intent: harnessing the power of communication to improve the world wherein we live. Acknowledging that they are two inseparable parts of a broader communicative approach to social innovation, at Politecnico di Milano, the research group Imagislab (imagislab.it) has been long addressing both.

The perspectives on the effectiveness of social communication are conflicting: on the one hand Mont and Power (2010) warn of the many stereotypes that are on the basis of a sustainable vision of the planet, and denounce the approximation of certain approaches, the contradiction of some objectives (as choosing an alternative energy and, at the same time, keeping using means as the airplane, that is a significant source of pollution), as well as the inefficiency of communication as a tool for social change. The authors also point out how difficult it can be to affect and change consumers’ attitudes/behaviours, in a context in which the principles of sustainable culture are not yet rooted in mass culture. From another perspective, some studies (Puggelli & Sobrero, 2010; Gadotti & Bernocchi, 2010) highlight and stress the role that public communication plays as an effective tool for educating people on topics of public interest, and on the acquisition of behaviours able to improve the quality of our physical and social environment. On certain issues, such as bike sharing and car sharing, it was also possible to measure the effectiveness of communication in relation to the success of the service, and the growing number of bicycle and cars available for sharing. As designers, we can make a contribution in order to gradually spread awareness of the major issues in the debate on sustainability in the consciousness of individuals. Concurring with Power and Mont (2010, p. 9), it would be a significant achievement if we could work in a context where «what policy makers can do is to provide people with a vision and goal that large changes in their lifestyles are needed for creating a more sustainable society, and that these changes are both possible and desirable». 
1.2 The project topic: food waste and energy saving

In the context of social communication, we chose to design communication campaigns addressing food waste, to strengthen sustainable behaviours in daily consumption. The topic is consistent with the theme proposed by the Fondazione Pubblicità Progresso, which assumes in this specific situation the role of “client”. The issue of food waste is strictly intertwined with energy saving. Also the theme of Expo 2015, “Feeding the Planet, Energy for Life”, extensively stressed the value of the relationship between food and energy. Studies have shown that every day huge amounts of food are wasted in the whole supply chain. The trend allocates 25% of waste responsibility to the end user, while 75% is dissipated in the very activity of production, from manufacturing, to processing and distribution (FAO 2014).

The water, which is the foundation of food production, is closely correlated with the energy used to make it available: the 44% of all the water used in Europe is consumed to produce energy, i.e. to make nuclear power, coal, gas and hydro plants work. Some examples: the production one kg of coffee takes 5,600 litres of water; one kg of wine requires 1000 litres; one kilogram of eggs 3200 litres; one kg of rice 3400 litres; one kg of chocolate 24,000 litres; one kg of chicken 3546 litres. Thereby, it becomes more evident that any food wasted entails and includes waste of energy. This phenomenon could be averted if users were effectively aware of this reality.

A study conducted by Garrone, Melacini and Perego (Garrone, Melacini & Perego, 2012)) has shown that Italy annually produces a food surplus of 6 million tonnes, with a value of 13 billion euro, a per capita value of 220 euro, and a total waste equal to 101 kg per person. Considering that, half of this discarded food could be repurposed because it is in excellent condition although slightly defected (dented packaging, irregular shapes, and so on); an alternative could be diverting this food to the non-profit sector (soup kitchens). The situation does not improve when it comes to real waste, namely not reusable food. In Italy 16% of what we consume is wasted (about 5.5 million tonnes of food valued at 12.3 billion euro). 55% of waste is generated in the supply chain, 45% in the household (corresponding to 25% of total food cost). This makes the issue an evident, relevant matter of concern, addressed by several operators that are striving to identify projects and solutions to at least regulate the problem. However, what is not usually highlighted is the role that communication processes can cover in raising awareness and affecting people to change their behaviours. Often, in fact, consumers are not aware of the real extent of the problem, as well as they are not conscious of the active role they play in it.

Similar considerations also apply to water consumption and waste, as an element involved in the energy production and consumption. The average daily consume of water is 6,000 litres, of which 89% is employed to produce food. It is therefore urgent to raise awareness toward behaviours that optimise the food consumption for avoiding massive waste of water and energy; a key attitude to preserve the water as a common good, a heritage often taken from granted.

This contribution presents three communication campaigns against food waste, which is, as said, a significant source of energy waste. They are the outcome of a course that is grounded on two objectives: a) to teach students how to design a communication campaign (strategies, techniques, languages,); b) to make students aware of a pressing issue — thereby giving them the possibility to become active agents as defenders and ambassadors within their networks of relationships (family, friends, colleagues). It is indeed well known that according to a principle of imitation that takes the form a social aggregation (Pugelli & Sobrero, 2010), people are more likely to change their attitude towards a behaviour if they observe that such a change is happening in a group to which they belong (friends, colleagues, family members).

2. THE PROJECTS

The following paragraphs outline three communication campaigns that address different areas of food waste. The methodological approach and the didactic aspects on the ground of these projects are then described in paragraph 3, Methodology.

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24 Purposed to contribute to solve moral, civic and educational communitarian issues, Pubblicità Progresso was born in Italia in 1971, and since its origins it considered communication as “serving the community” (http://www.pubblicitapprogresso.org).
25 Every year, Pubblicità Progresso proposes a competition for high school educational programmes and universities to create processes able to raise of awareness on social issues.
27 Considering the industrialised Countries, the surplus consists of 222 million tons, an amount equal to the sub-Saharan Africa’s food production; worldwide the amount is around 1.3 billion tons.
Campaign N. 1: *Even Michele knows is meant to change attitudes towards defective packaging.*
A survey shows that 10% of food is discarded because the packaging is bruised, broken, or simply because the product is not graphically perfect or has packaging with expired promotions. An online survey revealed that consumers are likely not to purchase a product with a packaging that is even slightly dented. This attitude depends on at least two factors: the perception that a defective packaging can alter the product; the perception that buying a product with an altered packaging does not correspond to the aesthetic standards we are used to. In essence, the research highlighted that often this attitude can be considered a “whim”. The campaign (Figure 1) conceived and designed expands this insight and develops a narrative that depicts some everyday-moments of the relationship between a father and his son (Michele, 6/7 years), with the first suggesting virtuous behaviours to be taken during the day. Instead it will be the son who, in front of a supermarket shelf, is able to suggest his father the opportunity to choose a product with a slightly altered packaging instead the intact one. The son becomes the metaphor of change towards more consistent and sustainable attitudes.²⁹

![Storyboard](image1)

**Advertising**

![Other communication formats: Offline and Billboards](image2)

(Figure 1) Even Michele knows: some parts of the storyboard, of the advertising and some example of offline and billboards communication formats

Campaign N. 2: *Every wasted food is a missed opportunity is a campaign against food wastage.*
The communication campaign focuses on the food waste issue, focusing on the lack of care and attention paid to purchased and badly preserved food. The point is that every time we throw away food we lose the opportunity to make a real contribution to this ongoing problem. The metaphor “Do not miss this opportunity” was born as a consequence of this reasoning, and it was developed through an amusing stratagem. The story goes that a young forgets that a beautiful girl is coming for dinner. When she shows up, he panics. And the only thing he finds in his refrigerator is a mouldy banana. The protagonist has lost the opportunity to give the girl (metaphor of sustainable behaviours) a good impression and, more generally, he failed the opportunity to give his own contribution to the food waste problem.

²⁹The video is available at the link: [https://www.youtube.com/watch?v=K_zqK4cl7ck&index=3&list=PL1z2q1-ekJ1BKw3Mu-5rcazc2-s1riEF](https://www.youtube.com/watch?v=K_zqK4cl7ck&index=3&list=PL1z2q1-ekJ1BKw3Mu-5rcazc2-s1riEF) [Accessed on: May 30th 2016].
The call to action of the campaign aims to inspire action, ensuring that people daily look after the organization of food in their kitchen, consuming it before the deterioration/expiration, and giving to food management the same importance and attention than other daily tasks. In particular, the target identified via desk research (about 200 online interviews) is a male, young person between 20 and 35 years old, who studies or works, and lives in a big city. The “personas” this campaign targets lead a busy life that forces them to spend most of their day out of their houses. Addressing this target requires to identify the correct tone of voice. In this case it was chosen an ironic tone of voice, that uses an ambiguous but fun register.  

**Campaign N. 3:** *Water flows throughout: do not waste it is a campaign against water waste.*

The project emphasises an interesting concept on the use of water: virtual water. Developed by John Anthony Allan V, from King’s College (London), the concept of virtual water defines the amount of water contained in food and consumers’ good production and trade (Allan, 1998). Data collected state that approximately 89% of the water is virtual, namely it means that this water is not physically contained into the food, but rather it was employed for its production, distribution, packaging etc. Throwing food away, therefore, means wasting water: often people are not aware of this irresponsible attitude, even when they show a certain sensitivity to sustainable behaviours. A desk survey consisting in 250 interviews revealed that 80% of people is interested in sustainable behaviour but is not informed about the dynamics linking waste of food, waist of water, and energy waste. The campaign goal is twofold: on the one hand to inform the population of the existence of a little-known problem; on the other, it eradicates the spread belief that small everyday actions do not matter and cannot contribute to solve an issue that has a much broader extent. Showing the amount of water contained in the food cooked every day, and contained in the one thrown away, the campaign has a didactic tone of voice.  

29 The video is available at the link: https://www.youtube.com/watch?v=oCGWpztOuYxU&index=2&list=PL1z2q1-ekj1Bkw3Mu-5rcacz2-s1riiEF [Accessed on: May 30th 2016].  
30 The video is available at the link: https://www.youtube.com/watch?v=gAq9ejamWsQ&index=1&list=PL1z2q1-ekj1Bkw3Mu-5rcacz2-s1riiEF [Accessed on: May 30th 2016].
3. METHODOLOGY

Leading into the teaching activity the topic of designing for social communication adopting the practice of Movie Design means to equip with appropriate tools from the areas of marketing, creativity and audiovisual production. As defined in the Politecnico di Milano, School of Design (Galbiati, 2005), Movie Design means structuring audiovisual, crossmedia, transmedia narratives, aimed at building messages for specific targets. Its design follows a strategic, creative framework that allows the use of different languages (photography, video, animation, storyboard, stop motion), with a direction aimed at building effective communication that can cover different sectors: business communication, entertainment, social media, gaming, new televisions (Piredda, 2008; Galbiati & Piredda, 2010). The Imagislab research group (www.imagislab.it) has been addressing some of the issues that can be considered valuable in terms of communication of best practices. Issues related to energy, the topic of this conference, as sustainable mobility, scarcity and waste of food, the value of water, and recycling. Thereby, Imagislab uses its design methodology to promote meaning transfer, learning and attitude change, investigating the power of stories.

3.1 Competencies

Dealing with campaigns of social communication entails teaching all the steps necessary to make the message consistent, effective and clear to the target. In this perspective it is crucial to provide students with knowledge and skills that belong to different disciplines (horizontal skills interwoven with the vertical ones). Here there are the most important:

- **Competencies on social communication.** It is the phase in which second-year BSc students get close to the social world. Often they are unprepared when they start dealing with this task, since at that point their curriculum covered only some aspects of graphic communication and meta-project. This stage has a transdisciplinary nature, and requires to integrate expertises that go beyond the real design itself: social communication design benefits of the support of sociologists, economists, and experts with a deep
understanding of the specific issue addressed, that happens through short, specific lessons aimed at framing and “unpacking” the issue.

- **Marketing and communication competencies.** Students as communication designers are asked to vet the context, the topic, the strengths and weaknesses of the product or idea to communicate, the definition of the strategy and of the tone of voice. They need to master a technical and scientific expertise that can be acquired using established tools coming from the marketing field.

- **Creative competencies.** The creative phase is the stage where the idea is shaped, where it is represented through images or texts (posters, commercials, radio, unconventional). It consists of the search for a creativity able to translate the strategic thinking through the realisation of an audiovisual storytelling (which is accompanied by the creation of a storyboard), and through outputs considered useful to support the campaign. However, creativity is a subjective competence: it is linked to the development of the creative process that arises in the practice of lateral thinking (De Bono, 2001). The creative process cannot be transferred; it can be shared and turned into a participatory activity instead; then it is not predictable, since in some cases it can bring to develop brilliant ideas, in other more didactic, sometime even ordinary or conventional.

- **Technical competencies.** They are the skills that allow students to learn the technicalities needed to realise a video: directing, photography, and audiovisual language foundations; how to deal with the pre-production, how to organize a set, how to handle the post-production in terms of editing, music, special effects and so on.

### 3.2 Design phases

The project development consists of the following three phases that need to be addressed in sequence:

- **Phase 1: theme and context exploration;**
- **Phase 2: strategic development and idea conception;**
- **Phase 3: audiovisual project (storytelling) and design of further communication artefacts.**

Phase 1 begins by analysing the brief. From experience I prefer to have real client providing precise indications in terms of communication objectives; hence, when the client does not exist, we operate through simulation: we identify a municipality, a public entity, a company that aims to promote matters of social concern as a strategy of corporate social responsibility. Working with a client has given way to extremely educational experiences for students, who are forced to challenge themself with a real partner, moving within its system of constraints.

The brief provided presents at least three elements: (1) the object/service/idea to communicate (What); (2) the target to address (Who); (3) how to communicate and the goal to achieve (How). Once the brief is defined, it starts a delicate, complex and crucial step that helps students understanding the general conditions wherein a certain communication operates and acquires sense: context analysis. This step includes the function of active listening (Sclavi, 2003), a horizontal method that relates with the verticality of the topics. Listening (to users, territory, administration, client) is the basis of the strategic methodology intended to define the boundaries of the communicative process, and to construct the empathy required to reach the heart of the issue.

The more complex part of this Phase 1 is the segmentation of the target, that requires a depth analysis. The questions to be answered are: What do people think about the topic? Talking about food waste, for example, what are the individual and communitarian perception and feelings? Are people aware that for each piece of cake wasted and thrown in the trash we can throw away even 500 litres of water, involved in the food chain? In addition: Where is going to be conveyed the message? In our cities, in supermarkets, in holiday resorts, in peri-urban areas, in the East or in the West? In a laic or religious Country? The profile of the target to reach changes accordingly to the places where it can be intercepted, since each place is a repository of a certain cultural model (and this is an element to take into account). These are elements that outline and “unpack” the context, resulting remarkably useful for facilitating the designer’s task. “Who are we speaking to” is the most critical element of the communication strategy. Getting the target wrong, as well as underestimating its knowledge can lead to serious communication failures that result in loss of money and credibility. To address this task it is necessary to progress conducting interviews with key subjects (chosen among a significant sample), and running online surveys that can be realised using the social networks, taking advantage of the connections of each student. In this stage, students feel involved, sometime even included in the target they are analysing. The empathy created in the theme and context exploration phase is the fertile ground that will allow students to develop a significant concept and define the communicative specificities of the campaign. This step also helps to identify the tone of voice to use to deal with the audience:
Dramatic or whispered? Imperative or unconventional? Reassuring or provocative? The tone of voice is critical to convey the value of the message. Failing the tone of voice means throwing energy, time and money away. The end of Phase 1 leads to the construction of the strategy: all the piece of information gleaned contribute to build the “copy strategy”, a document providing all the knowledge necessary to process a creative idea; a creative idea with an image, a story, a claim and a payoff, that will then be diversified and adapted accordingly to the planned means and channels. The copy strategy contains cognitive maps of the topic, the target, the tone of voice, and it clearly states the insight, that is the concept that can affect a purchase behaviour (in the case of advertising) or lead to a behavioural change (in the case of social communication). Throughout the process, showing students the entire methodological grid and the progression of their work, step by step, is functional and helpful. Otherwise, students have a tendency to quickly come to conclusions without drawing the necessary attention to the nodal points of the strategic plan.

Phase 2 covers the creative concept that is on the ground of commercials, posters, radio release, outdoors, unconventional communication. The knowledge and elements previously gleaned orient students towards the definition of the insight, that is the emotional value that is able to affect the target’s existent, former behaviours. The use of storytelling proved to be a useful tool for the creation of narrative engagement. In particular, the audiovisual storytelling (Galbiati & Piredda, 2012) has to face a difficult challenge, that is producing a narrative world that is coherent with the communication objectives, able to provide suggestions and to elicit empathy in the audience. A task even harder considering that the communication is concentrated in the 30 seconds of a commercial. The narrative function is the core of creative design: coping with the difficult task of building a trust agreement with the end-users, the narrative allows to share and spread collective visions (Pinardi & Matrone, 2013). Stories are indeed much more effective in representing the worlds of meaning, than abstract representations. A narrative gives the audience the possibility to empathically experience an event, perceiving the temporal flow of life and situations. If a narration is effective, it will cause a high degree of involvement and identification: as in the cinema experience, the viewer will be able to empathise with the narrative plots, finding subjective connections and personal adherences to what is told.

Phase 3 is dedicated to the campaign realisation. The most complex part is the advertising with the definition of locations, actors, photography, lights, music, voices, sounds, editing and titles. Besides this, other forms of communication identified as useful to perform an effective communication can be included. To obtain satisfying and compelling communicative artefacts students have to learn all the technicalities related to audiovisual production (pre-production, production, post-production), which are combined with expertise in the fields of graphics, lettering, and, more in general, with an aesthetic that makes the communication artefact as pleasant as possible.

4. Findings

The experience resulted particularly formative for students on these three points:
   a. Training function, related to the acquisition of design and technical tools for communication;
   b. Cultural function, introducing students to unexplored topics allows to gain awareness on matters of social concern;
   c. The function of becoming “influencers”, creating a positive contamination through social networks (weak or strong links, friends, co-workers) capable of generating cascade connections through word of mouth, making designers reference models to look at, as sources of good behaviours and attitudes.

Students follow a varied and transdisciplinary path. They are matter-of-factly led to deal with arguments with different levels of logic, trying to adjust in the same frame the information gathered from the different disciplines investigated. Throughout the course they learn what it means to listen and dialogue with different knowledge, drawing each time knowledge/practice functional to their project. Moreover, they acquire skills necessary to dialogue with the different actors involved in the process (stakeholders, citizen, experts, target), translating valuable insights into useful connections. We could speak of practice of interconnection of knowledge, or of cross-fertilization, which enables students to obtain the maximum benefit from passing through the thresholds that separate, and in the meanwhile connect, disciplines (Sini, 1989). According to Marttila and Kohtala (2014, p. 457), “In sum, participants in successful transdisciplinary processes are competent in their own disciplinary know-how but are also able to encounter another knowledge base, merge mental models, and construct new meaning and knowledge through synthesis and reconciliation”.

5. PRACTICAL IMPLICATION

Students, who often have the tendency to start with an attitude of mistrust on sustainability or social innovation, quickly mature a passion that sparkles into understanding. They analyse the diverse aspects of the phenomenon/situations and they consequentially understand the strong impact that this communication model can have on the audience, especially when products are published on social networks, or dedicated platforms. The very fact of taking part in a design activity that results into a concrete, tangible outcome prompts students to feel a certain, different responsibility: their project can be seen even thousands of times, influencing the audience and initiating new practices in non-expected fields.

Nevertheless, being an experimental laboratory this experience also showed some problematics:

- Students with the same age and with a common didactic curriculum (as second-year BSc students) present different background (humanities, scientific, artistic, technical) and different cultural sensitivity, both in relation to the topic, and to the abilities/skills expected for performing an in-depth analysis, and necessary to reach a good, satisfying result. We addressed this gap planning ad hoc, targeted interventions to the diverse groups, transferring the required knowledge depending on the specific situation.

- Certain social communication topics are particularly burdensome and far from the youth culture. For example the issue of organ donation has been addressed by an entire class in the A.Y. 2012-1013, putting students in front of the question of death, arousing feelings of fear and inadequacy. Dealing with the topic of food waste, students initially reacted as if the problem did not concern them. To fill this “indifference” scholars and organisations have been involved: they succeeded in providing knowledge and awareness, making students conscious that food is an actual issue, in which they are directly and daily involved. However, the risk was a top-down education, in which students were asked to assimilate their teacher’s perspective in order to accomplish their task (the project). Our aim on the opposite is to encourage them to create their own point of view on the topic, sharing criticalities, and providing the help necessary to define their design process.

- During the design process, teachers and students’ energies were first focused on the identification of the copy strategy, then on the definition of the creative design, and to conclude on the realisation of the audiovisual project. Albeit we are aware of the function that media planning covers in order to bear fruit, the phase dealing with the dissemination and the identification of media aimed at conveying the message has been left out: this phase involves indeed a typology of work (media planning) which does not belong to the course curriculum and objectives.

6. ORIGINALITY AND VALUE

Social communication projects designed with students fit in a frame that we named Movie Design (Galbiati, 2005). The term appoints a process that addresses the three aforementioned steps: strategic, creative, and realisation phases. Each of them is usually managed by experts with specific skills and backgrounds. In communication agencies, the strategic part of the project is managed by accountsategic planners, the creative is operated by the couple art/copy, while the realisation is ran by external agencies (video production enterprises, graphics, etc.).

The Movie Design original approach consists in having addressed since 2001 all these three phases, developing all the skills needed to craft communication artefacts/products characterised by excellent levels of performances. Moreover, throughout the entire process, students were able to experience the value of the direction, learning the tools, skills and practices necessary to manage and cope with the design of audiovisual projects as a complex system. In addition, Movie Design projects differ from the other ones using audiovisual languages (documentaries, scenarios, tutorials etc.) because they transfer messages directed at a specific audience, answering the customer needs. As a matter of fact, in terms of structure and purpose, the nature of movie design projects is particularly close to the advertising: they share indeed structural specificities. However, the different nature of the message to be conveyed pushes students to get immersed into topics and matters that suggest involvement and raise passion, making the designers themselves the first communicators of best practices on social innovation.

We understand that, often, communicating best practices takes the form of small contributions compared to the actual world-wide trends, but we are also aware that it is from this specific, detailed work carried out through word of mouth and contamination of behaviours that we can realize what William Blake used to say about good as a consequence of minute details.
BIBLIOGRAPHY

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