Swarm Characters: The Principle of Distinctness in the Character Analysis

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ABSTRACT

To create scenes like battles with thousands of soldiers means to create thousands of different and individual soldiers. For instance, when Gandalf is riding down the hill towards to the army of millions of Uruk-hai during the battle of Helm's Deep in Peter Jackson's Lord of the Rings (Part 2: The Two Towers) the fighting, dying and escaping Uruk-hai should act in an optical consequent way. Thus, every Uruk-hai of the army had to be programmed individual. But in spite of their individual properties and individual behaviours, they are not individual characters. According to the actions, all Uruk-hai are indistinguishable. Like extras every single Uruk-hai disappears in the background. They do not carry any significance in terms of characters in themselves, but in some movies crowds are important vehicles of the story. Therefore, the term "swarm characters" will be introduced and defined as fictional crowds in which the single being has no relevance for the story. But as a whole the crowd can be regarded as a single and discrete character. Using the example of the two movies "For the Birds" by Ralph Egglestone and "Balance" by Wolfgang und Christoph Lauenstein, swarm characters are analysed with help of Eder's basic model "clock of character" to verify them as equal characters in the plot of the stories.

Keywords: Swarm characters, "clock of character", character analysis, fictional being, movie theory, animation.

1. INTRODUCTION

A computer animation is a computer generated image product that shows an artificial world of images in motion. The imagery can go after reproducing reality, or it conveys the appearance of reality (Pieper 1994). The world of images should be composed more or less realistic. To create crowds for an animation movie is a big challenge. Every individual of a crowd should be unique and fulfil a different task. It would not be applicable to regard a crowd as a group of completely identical individuals according to their outfit and behaviour. To create scenes like battles with thousands of soldiers means



to create thousands of different and individual soldiers. This can be realised only by high sophisticated software products.

A character of a story is defined as a figure or a being which has a significant relevance for the further development of a story. Generally individuals of crowds don't have properties of a character according to this definition. Nevertheless for instance all individual figures of the army of Uruk-hai in Peter Jackson's Lord of the Rings (Part 2: The Two Towers, New Zealand/UK/USA 2002) are programmed individually. But in spite of their individual properties and individual behaviours they are not individual characters. According to the story all Uruk-hai are indistinguishable. Like extras every single Urukhai disappears in the background. They do not carry any significance in terms of characters. But in some movies crowds of beings play a significant role in the story of a movie. Their single characteristics are not distinguishable, but the crowd as a whole has a property of a character. They act like a swarm. Thus, the term of swarm character should be introduced. If a swarm character can be regarded as a single character, it should be possible to analyse them with help of models of character analyses. To verify this hypothesis two movies with undistinguishable figures should be analysed with help of Jens Eder's model "clock of character" (Eder 2008): "For the Birds" by Ralph Egglestone (USA 2000) and "Balance" by Wolfgang and Christoph Lauenstein (Germany 1989). In these movies, after a short description of the stories, the principle of distinctness should be discussed and the property of a swarm character should be derived from it. Afterwards the analysis of the swarm characters with help of Eder's model "clock of character" should be debated.

2. "FOR THE BIRDS" BY RALPH EGGLESTONE AND "BALANCE" BY WOLFGANG AND CHRISTOPH LAUENSTEIN

The movie "For the Birds" is a short movie, which was made by Pixar and finalised in 2000. It was debuted before the movie "Monsters, Inc.", which was a Pixar/Disney production as well. It was awarded the 74th Academy Award as the "Best Animated Short Movie in 2001".

The movie takes approximately 3 minutes and is about a number of small birds which land on a telegraph line. They are grumpy and just a few seconds after landing, they start quarrelling. The birds suddenly fall silent when a large, clumsy-looking bird takes place close to them. Before coming to the crowd the big bird shyly waved over to them, apparently with the aim to come in contact with the small birds. The sound and the behaviour of that bird appear strange and the little birds imitate it promptly. This causes amusement among them for a short time. When the great bird pipes up again, the little



birds freeze in their joy, move further away from the pole and start gossiping with suspicious eyes.

Meanwhile, the big bird flies with awkward movements to the small birds and lands in the middle of the crowd. Because of its weight, the line begins to sag. Hence, the little birds closely slip to the big bird. Immediately they begin to bitch at him. Obviously looking for friendship he joins the conversation. After a while, one of the little birds hacks the big one into his side. Because of that kick the big bird falls upside down hanging with his claws on the line.

Two of the little birds start hacking at the claws and step by step the claws come off the line. The other birds encourage the two loudly. However, they notice too late, that the line has stretched very dangerously. The last claw of the big bird comes off the line and the little birds flung into the sky. The big bird falls gently to the ground, accompanied by numerous black feathers, which have become detached from the little birds when they were thrown into the sky.

After a short time, the birds fall from the sky. All are without feathers, which cause great amusement of the big bird. Full of shame they seek shelter behind the big bird.

"Balance" is an eight-minute puppet movie and was producted by Christoph and Wolfgang Lauenstein as a high school movie of the University of Kassel in 1989. In 1990 it won the 62nd Academy Award for Best Animated Short Movie (Schoemann 2003).

Five human-like figures with pale faces and without hair, dressed in long coats standing in a circle with their backs turned inward on a free-swinging, square platform. When one of the figures makes a move, all the others have to react with an corresponding motion, otherwise the platform loses its balance.

Later in the story, the five figures stand at the four edges of the platform and go fishing with telescopic rods. One of them catches a box that can be wound up like a music box and plays subdued music. Throughout the movie, the music box is becoming the object of desire. Sequentially the figures move to the music box, forcing the other figures to move away from the object, which sparks a quarrel. At that moment, it is more difficult to keep or recover the balance on the platform, the platform begins to swing more and four of the figures lose their balance. Three of them fall off the edge of the platform, another clings to the edge of it. The fifth figure owning the music box at that time has to leave the object of desire at the opposite side running to the point of the last remaining figure hanging on the edge of the platform. But instead of helping him in distress, he kicked him into the depths. Hence, he got into a hopeless position. As the coveted music



box is unreachable at the opposite end of the platform, he is condemned to immobility and inaction.

3. DISTINCTNESS

Both movies start with individual fictional beings. In "For the Birds" little birds arrive on the telegraph line one by one. When at TC 00:37 the dispute begins, the mood of the second bird suddenly changes to that of the first bird. A key differentiation get lost at that moment. During the dispute a third bird takes a seat on the left of the first bird. He is also in a bad mood. He rolls his eyes on seeing the quarrelsome two birds. It is his only independent act that he performs in an identifiable way. After a short time he also becomes involved in the dispute (TC 00:42).

The individual figures condense into a crowd, when more and more birds of the same kind with the same conduct take a seat on the line. They are quarrelsome and at odds with themselves. They are united only by the appearance of a strange bird with a different appearance.

In the further course of the movie, there are five individual actions and activities of single figures: 1) Four birds ape voice and behaviour of the big bird (TC 01:02), 2) When the great bird lands on the line in the middle of the crowd, a little bird hacks him in the side (TC 01:44), 3). Two birds start hacking at the claws of the big bird hanging upside down (TC1:49), 4). One bird realizes that the line has now stretched dangerously (TC 02:08), and finally, 5) at TC 02:34, the first stark naked bird falls from the sky.

But these individual actions do not give the figures individuality. Only for a short moment single birds are distinguishable from the crowd. As soon as they completed their individual acts, they immediately disappear again in the mass of collective acting. Therefore, it is almost impossible to carry out the character analysis of the individual small birds. The birds are only to be understood as a crowd. There is no leader, and thus no centre of the collective. The little birds can only be analysed in their entirety as a fictional character. They are presented in a deceptive unit.

Contrary to "For the Birds" the question of the distinctness of the characters, which is created in the movie "Balance" is more complex. All figures have a number on their back (23, 35, 51, 75, 77), which makes the characters distinguishable from the outset. However, the appearance of the characters is almost identical.

At the beginning one of the figures is introduced in a close-up. The human-like figures have white, bald heads. The narrow nose, small ears and the "o" shaped mouth barely



stand out. Only the dark eyes move sometimes. Nevertheless, the view is rigid and empty. The figures are very long and slender, almost skinny. They have no belly. The hands have thumbs and three instead of four long fingers. The long, gray, coarse-knit coats are not fitted correctly and look too large on them. Under the coat they wear a thick jacket.

First the five figures stand in a circle with their backs turned inwards, some with their hands clasped behind their backs. The charisma of the figures suggests the image of prisoners. The situation is hopeless. There is no escape. Just behind the edge there is a seemingly endless depth. As mentioned above this lack of freedom is coupled with the total dependence on each other, whose existence depends on the balance of the platform.

All figures have the same pale face and the same behaviour. They wear the same long gray coats. They do not have facial expressions. Without the numbers on their backs they can be hardly distinguished. Unlike the first movie there is no interpersonal closeness with each other. The initial constellation in the circle facing outwards provides maximum distance to each other. Their gazes do not cross. In contrast to their appearance, their actions are different to a certain degree. To investigate this in details, the movie should be divided into three phases - opening and closing credits are excluded from the consideration. In Phase 1 (TC 00:10 to 01:32) figure No. 51 brings the music box out of the depths with his rod. In Phase 2 up to TC 05:15 when No. 51 prevents No. 75 from reaching the music box. Phase 3 up to the end represents the showdown of the story.

Phase 1 contains a series of actions and reactions. One individual is acting and in consequence the other figures have to react. One figure takes a step in a freely chosen direction the others react in order to restore the balance of the platform. One takes out his telescopic arm, the others follow in a suitable way.

At TC 00:10 two figures can be identified by the number on their back as numbers 35 and 75. No. 35 is located with its full back to the camera, No 75 is on the left of him and is turned slightly to the other side. At TC 00:24 the first action takes place. During the transition of two sequences, there is a change of perspective, so that no. 75 can be identified as an actor. In TC 00:34 no. 35 carries out the second single action with a step forward. In TC 00:32 a change in perspective has taken place. At the beginning of the action no. 35 is located on the right-hand side of the frame in profile facing right. He can be identified only because No. 75 is on the left of him and his back turned to the camera. At TC 00:42 no. 23 is directly identifiable by making the next step. At TC 01:04 the



figures successively start to pull out a telescopic rod from their inner coat pockets. By rapid change of perspective and attitude of the camera the identification of this figure is not possible. Even at TC 01:18, when one of the figures throws its telescopic rod to fish, the initiator of the action is not clear. Taken together, the figures in phase 1 are sometimes separately identifiable. However, the single acts are not shaping their character. After a few seconds they disappear in the background.

In the second phase, the actions become more individual. After no. 51 has salvaged the music box, the single actions of the figures are characterised by an urge to inspect the music box. Successively no. 51 (TC 02:10), no. 77 (TC 02:34), again no. 51 (TC 03:14), no. 23 (TC 04:02), no. 35 (TC 04: 26) and again no. 51 (TC 04:39) ensure by clever step placements, that the platform tilts and the music box slips to them. But the figures do not become distinct characters. There are only some behavioural actions in phase 2, which are differentiable. No. 51 is the one who fishes the music box and reveals its reddish colour. No. 77 first discovers the winding key, turns it and shrugs his shoulders helplessly. No. 51 winds up the music box completely for the first time and listens to the music. No. 23 puts his ear very close to the box, listens to the music while embracing the box and is the first who falls to the ground, as the box slips away from him. No. 35 puts his head in his intertwined arms on the music box. He moves his fingers to the rhythm of the music. He also falls onto the ground, when the music box comes towards another figure. These are all distinct actions. But are they significant enough for the distinction of single characters?

In the movie "For the Birds", the little birds act mostly collectively and only in a few scenes individual actions can be identified. But in "Balance", more individual actions exist and contribute to the distinctness. But overall, all individual actions remain very weak as features of distinctness and can only be regarded as part in a collective action. All single actions sharpen the characteristic of the crowd. None of the figures imprint themselves in the viewer's mind as an individual character. This is prevented mainly by permanent changes of perspective and attitude. Due to the high symmetry of the platform the viewer regularly loses the orientation. A newly identified character escapes his gaze immediately. Even in the showdown the process of individualisation of numbers 23 and 51 can be observed. But there is neither a dramatic nor a logically justifiable development, which suggests why no. 23 has to accomplish the deeds at the end as described and why he "has to" remain alone on the platform. Maybe the mystical meaning of the special number 23, used different times in pop cultures as well as in numerous movies and novels because of William S. Burrough's short story "23 Skidoo" (Benecke 2011) prompted the Lauenstein brothers to let no. 23 survive. Possibly, the fact that no. 51 is the finder of the music box and is finally kicked over the edge by no.



23, should carry a particular meaning. But nevertheless, even no. 23 and 51 represent the characteristics of all figures.

4. SWARMS

The central features of swarms are decentralisation, not-synchronism with quasi-homogenious, simple units. As collectives without a center and without hierarchical structuring swarms appear in the shape of social organization with larger degrees of freedom, while thinking more flexible, creative and faster (Horn 2009: 8). As a structural model, the swarm organization is adaptable to communication behavior, movement patterns up to cooperative forms of knowledge transfer in the social media, like wikis or blogs. A typical and prominent example of swarm organization is a so called flash mob. Groups with no central organizers gather together for a short rally and become undone afterwards as quickly as the flash mob started. Swarms act and react without central control only by cooperation of individual agents which interact locally and coordinatively with each other. But their functions can be highly differentiated, e.g. in the division of labor of ants (ebd.: 10).

Eva Horn provides the ontological question of the "being" of swarms by asking, what is a swarm if it exists only in constant motion, common in operation, in a sudden act of confluence. (ebd: 14). Horn approaches this question with a comparison of a network. The decentralization of a network can be described as a static topology of nodes and edges. According to this description swarms are characterized by the dynamics of a perpetual beta, a system that will never be completed.

A futher main characteristic of a swarm is the reliability. Because of their high redundancy, swarms in their entirety can survive many kinds of disturbance. For instance the death of a single ant does not destruct the whole system of the swarm. At the beginning of a process swarm systems have a bad ratio of cost and benefit. Swarms act up on a principle of trial and error until they have found a useful solution. That is one of the reasons why they can be adapted to different environments (ebd: 12).

Since the concept of a swarm was quite appropriate for insect societies, swarm behaviour is an example for promising robotic concepts (Beni 2005: 2). The term "swarm intelligence" includes all social insect studies, e.g. studies of ants, termites, wasps and bees. These are amazing examples, how a large number of simple individuals can interact to obtain collectively intelligent systems. In terms of information technology swarm intelligence was first minted by Beni as a "buzz word" to denote a class of cellular robotic system. (Şahin 2005: 11). But during the recent years, swarm robotic was derived from an application of swarm intelligence. Angelika Karger (1999: 1291)



described a project of James Mc Lurkin and Rodney A. Brooks. They developed robotic ant colonies at the MIT AL-Lab following the example set by the nature. Every little robot was equipped with 17 sensors, 2 emitters, 3 LED, a processor and a 8 Kbyte EEPROM (see also Levy 1993). The combined question of technical and social simulation can be found in the field of "Artificial Life", which established since many years. However, this problem also affects the producers of animation movies.

5. SWARM CHARACTERS

According to Ed Catmull, President of Walt Disney and Pixar Animation Studios, "a character in a movie is a vehicle [...] A good character is full of desires, yearnings, thoughts, and passion. In a great character, we see ourselves and, in that instant, slip out of our seat and into the movie" (Catmull 2012). Thus, a single Uruk-hai cannot be regarded as a character. But in some movies, it is impossible to neglect crowds, because they are in fact vehicles of the story in the meaning of Catmull. In this case a crowd can be regarded as an independent discrete character. The single beings of the crowd are characterized by redundancy and have no significance of a character. Ontologically these crowd can only be described as a swarm being. At this point the term "swarm characters" should be introduced. Swarm characters should be defined as fictional crowds which are vehicles of a story.

As described above the little birds in "For the Birds" and the grey beings is in "Balance" should be regarded as swarm characters. To approve their existence as swarm characters it should be possible to apply models of character analysis.

6. ANALYSIS OF SWARM CHARACTERS

Beside the character study respecting their ontology, creation, reception, textual and cultural references as well as their typology the consideration of characters as a part of fictional worlds is particularly prominent, which are explained in discourses of the fictional world theory and the philosophical possible world theory. According to Marie-Laure Ryan possible worlds do not have to exist physically, but are conceived as the sum of the imaginable world (Ryan 1991). The universe is hierarchically structured and the central element is known as the "real" or "actual" world. But there are also other members of a non-actual possible world. A world is possible, when there is a relation to the actual world by a relation of accessibility.

Nicholas Rescher describes the actual world as a world which only represents an autonomous existence. The other possible worlds are results of mental activity like dreaming, imaging or storytelling. Inspired by the possible world theory Uri Margolin pointed out, that individuals whose action and behaviour promote the narrative fiction



can be approached as "non-actual individuals, designated by means of referring expressions," who are "members of some non-actual state of affairs or possible world" (Margolin 1989: 4). This approach enables to explain their abilities to arouse emotions in the recipient; an aspect, which is also a component in Jens Eder's basic model "clock of characters" (Eder 2008). But Eder criticizes, that in many models, figures are reduced to functions that relate to actions, situations, conflicts and interactions. But in order to capture important aspects of the story the character itself should come into focus.

6.1. The Clock of Character

As already mentioned in the previous chapter Jens Eder demands of the character analysis the systematic study of individual characters, which includes all aspects related to its fictional texts as well as the processes of reception and communication. According to him, the basic model therefore has to include the context between figure representation and their properties, the characters in the text, the reception process and the disposition of producers and viewers.

Therefore he introduces four viewpoints in analyzing figures and merges them into the basal model "clock of character". According to Eder the analytical reception of a movie by the viewer proceeds as follows (2008: 141):

- 1. Before viewers recognise a character, they perceive their true audiovisual presentations in a non-representative way. This basal level of perception is captured in the model under "artefact", because you can relate to its description by way of representation, which triggers the preconscious sense impressions.
- 2. Based on their perceptions the viewers construct mental models of the character; they develop ideas about a figure which possesses characteristics as a part of a certain world. At this level, we examine the character as a fictional being.
- 3. When the audience has captured characteristics of the fictional being, they can understand it as a sign which points beyond the fictional world and contributes to the communication of indirect meanings, themes and general statements. At this level, we examine the character as a symbol.
- 4. The previous reception results suggest possible causes and effects, which the character has in the real life, especially in the communicative contexts of their production and reception. At this level, we examine the figure as a symptom.



5. And finally, the audience can reflect on the way how the character is designed on each of the previous levels. At this level, we examine the figure as an artefact.

Graphically, this analytical sequence can be represented as a circle. The artefact field is used twice. The model is responding to the fact that the analytical process is not completed after a single pass, but that the process is repeated throughout the movie's presentation. After processing the first character-related information, there will be more information and processing steps that lead to new ideas and conclusions. This indicates that Eder's "clock of character" is a dynamic model. In the following chapter, an attempt is made to study swarm characters with Eder's basic model, which validates swarm characters as discrete characters.

6.1.1. Characters as Artefacts

In "For the Birds" a telegraph line in a rural area is the place of the action. At the beginning the camera moves along the line to the left with a medium close-up. It follows the curves of the lines. In the background there is just blue sky with a few white clouds. The shot ends, when a small bird approaches the line for landing.

The movie is backed by cheerful fast music ("Big High Wire Hop" by Riders in the Sky), which is reminiscent of cowboy music of the 1930s and 1940s. It sounds purely instrumental and plays throughout the movie up to a break in TC 02:22.

In a few camera settings, you can see the landscape in the background in which the story is set. There is a lane, a wheatfield and on the horizon a small group of trees. The light from above suggests that the story takes place at noon time of a warm summer day. Landscape, weather and music convey a rural idyll in a perfect world somewhere in the United States of America.

The whole movie is non-verbal. Verbal communication is imitated by peeping of the little birds or the strange roaring voice of the big bird. Only at one point (TC 01:10) the questioning "Hello?" of the big bird was heard. The music encroaches on the action of the story at only two points: once at the sagging of the line by the weight of the large bird (TC 01:29) and when the big bird's claw releases the line (TC 02:22). After releasing the pressure of the line and throwing of the little birds upwards, the music continues in an unchanged drive.

The movie starts with individual acts of three little birds. At first, one lands on the telegraph line and settles down. The second bird lands clearly in a better mood, lounging comfortably and getting into a fight with the first who feels disturbed by it. The third



lands and rolls his eyes because of the two disputants and becomes also involved in the trouble in a very short time. Up to this point, it is easy for the viewer to distinguish the birds, even though they look almost identical. Only later when the fourth and fifth bird of the same appearance lands on the telegraph line at TC 00:45, the three birds descend into indistinctness. This is supported by a slow wide-angle zoom from the camera at TC 00:51, as more and more birds land. The zoom stops abruptly when the big bird pipes up for the first time from the off. At this point, eight birds are completely visible. Two birds on the left and right can be partially seen. The exact number is hidden from the viewer. In this setting the innumerableness and thus indistinctness is documented.

The movie "Balance" is about five creatures, which all have a number on their backs (23, 35, 51, 75, 77). These numbers make the characters basically distinguishable. However, the distinctness is limited. Every character is not shown permanently from behind. If a single action is taking place, the actor is usually shown from the front. The number on the back is not visible. Only with help of the principle of exclusion it is retroactively clear which figure has executed the single action.

The camera action supports the display of the hostile and desolate environment. Throughout the whole movie the camera is not moving. No camera movement, no swing, no zoom. There are only hard cuts, permanent axis shifts and changes of perspectives. Since the level is highly symmetrical and monochromatic, the audience quickly and permanently loses their bearings.

The movie "Balance" already provides discomfort with its noise in the opening credits. Music is completely omitted. The figures do not communicate with voices. They are silent and remain their silence throughout the movie.

Their location is a gray platform, freely suspended in space which is illuminated from below with a pale light. The noise described above is definitely not caused by the platform itself, but from outside. The atmosphere is hostile to humans, which conveys hopelessness, control and dependence. There is no escape from this platform, but it is unclear how the characters got there, and what the beings live on. The pale light from below, which looks like a glaring spotlight and the distant sounds convey that the figures are not alone. There is something or someone who controls the system. Because the platform itself can swing freely, the figures are in an existential dependency on one another in an effort to maintain equilibrium. If one of the characters takes a step, the platform will lose balance with groaning noises. The other figures are in turn forced to take a compensatory step.



At TC 00:45 the viewer is granted a brief look at the cutting edge of the platform for the first time. It looks like a poorly plastered wall like concrete. The centre of the story is a box fished by a figure from the depths of space. It literally adds a splash of colour. The box has a warm reddish-brown colour and makes jazz-like trumpet sounds when you wind it up with a key like a music box. In a very short time it becomes the object of desire.

6.1.2. Characters as Fictional Beings

The characters of "For the Birds" and "Balance" are already described above in a detailed way during the work out of the characteristics of swarm characters. In "For the Bird" the individual figures condense into a swarm character, when more and more birds of the same family land on the line. They are all in a bad mood and fighting against each other. Only when the strange bird arrives, they become a team for three short moments directed against the common stranger: Firstly while imitating the big clumsy bird, secondly while gossiping about him full of distrust and suspicion and finally by joining forces against the big bird trying to remove him from the telegraph line.

In "Balance" all figures are isolated creatures. Only the fate unites them to spend their life on the bald and cold plane. Only when the music box enters into their life, the figures communicate with each other. After a short time there is a fight for the box between them. At the end only one of them survives in loneliness.

6.1.3. Characters as Symbols

The movie "For the Birds" essentially is a confrontation between the Self and the Other. The flock of birds initially is the embodiment of an individual. It introduces the personification of the individual, being in a bad mood and feeling deprived of its privacy by the good humour and close approach of a kindred spirit. Only when a stranger appears from outside, they develop a deceptive and blinding unity, a typical social behaviour in many societies. Internally at odds with their own kind, but unity will arise at that moment when external conflicts overlap the inner conflicts. The swarm distrusts the unknown, the unusual behaviour, the foreign being. Hence, the swarm can be regarded as a symbol of xenophobia.

In "Balance" each figure tries to enter into the exclusive possession of the music box. In their action they don't realise, that there could be a harmonious outcome. If they would move the music box into the physical centre of the platform, they all could share the joy of the music box. The world would have remained in balance, in a harmonious way. But the precondition would be a balanced and harmonious interaction of the community.



In addition to the world, which is visible for the viewer, there obviously must be another world outside of the plot. The property of the space, in which the platform is embedded, remains hidden to the viewer. The technical sound indicates that there must be another area of action. Where are the sounds coming from? Where is the light coming from that illuminates the platform from below? Do the figures know something about this outer world? What do they see when they look down over the platform's edge? Where was the music box before it was brought up by a figure onto the platform? The limited, misanthropic world of the figures cannot have been created by them. There must be a Creator who created this uncaring world without freedom. But this Creator could not have any goodwill towards the five figures.

This suggests that there is a connection between the inner and the outer world of the figures. It allows the interpretation that the figures and their actions reflect the inner life and psychological state of a person. It may be the mental state of a depressed or abused person. A being who is unable to love itself. It can only feel the happiness for a short moment, before it follows the compulsion to destroy luck immediately, which it just obtained. The psychological equilibrium at the beginning and end of the story is deceptive. It is characterised by a lack of freedom and solitude without inner peace. Any change which befalls it from outside unbalances it. It automatically leads to internal conflicts.

6.1.4. Characters as Symptoms

The movie "For the Birds" deals as described above with serious everyday topics: xenophobia, foreigner problem, dealing with something strange, the inability of dealing with someone's Self. Ralph Egglestone chooses for this story an animation movie. As shown above, there are just two characters identifiable: The big bird, which symbolizes the Other and the swarm character, which represents the Self. But even in their bad mood the swarm character provokes laugh.

"For the Birds" was produced in 2000 and debuted in 2002 as a short movie before "Monsters, Inc." to a worldwide audience. With this animation the producers do not want to point with their finger directly on the weak points of the society. They just want to hold a mirror up to the spectators. The social criticism is embedded in a funny and entertaining story. Although the entertainment of the audience certainly is the dominant aspect, the characters should keep some meaningful characteristics. The artists of Pixar argue that characters do not come 'alive' by being presented only as cute, crazy or even funny, but with the contribution of their thoughts and feelings they give access to the audience's own feelings.



In contrast to it Wolfgang and Christoph Lauenstein tell their story in a more drastic way by using a puppet movie. The content of entertainment is low and its charisma is burdensome. "Balance" is a high school movie, which probably did not expect more a box office success. The artistic objective has obviously the priority over the commercial success. This puppet movie was created in Germany in 1989, when Germany was still a divided country. Not only the political situation was dominated by the Cold War, when the superpowers USA and USSR faced each other unforgivingly. The daily life was dominated by fear of a nuclear war. The contact between West and East German citizens was difficult and problematical. Of course, there was life behind the 'Iron Curtain', but marked by control, spying on individuals and lack of freedom.

During this time the movie "Balance" was created, containing a swarm character representing loners with no social structure and no social interdependence. Their appearance reminds of prisoners in labour or concentration camps. The swarm character represents the inner loneliness of a being without hope and love.

7. CONCLUSION

Basically, in a crowd no characters can be identified and analysed, because their individual figures disappear as one of many into fuzziness. Usually crowd individuals have only the function of extras and do not bring forward the action. In both, "For the Birds" and "Balance" there are creatures as well which appear as a group and can hardly be distinguished. But as the crowd they play a leading role in the two stories. Hence, for this kind of crowd the term of swarm character was introduced.

In "For the Birds" there are fifteen small birds that determine the action decisively. They are the counterpart to the big bird. They cannot be distinguished visually. In some scenes they do short individual actions but without a contribution to achieve a distinctive feature. In "Balance" the situation is even more pointedly. The plot is entirely determined by five scarcely distinguishable figures. Other figures do not act. They wear numbers on their backs. At the end only one figure survives (No. 23). But nevertheless they can only be regarded as one swarm character. Supported by changes in perspective and axis shifts of the camera and by a highly symmetrical location, the viewers get lost in disorientation according to the individual figures. They become indistinguishable.

The trying to analyse the swarm characters as artefacts, fictional beings, symbols and symptoms was successful. With the applicability of Eder's basic model "clock of character" to the little birds as well as the pale men as a swarm, it could be verified, that the swarm characters can be equally regarded as single characters.



Animation movies are ideally suited for the production of swarm characters. There are no limits to create identical figures. Individual fictional beings can be introduced separately at the beginning performing distinct individual actions before they disappear in the crowd with help of a slight wide-angle zoom, perspective and axis shifts of the camera. At that moment the figures are no longer identifiable as individual figures. Distinctness is lost abruptly. But the question whether the animated crowds are only extras or swarm characters is depended on their roll in the story.

8. REFERENCES

8.1. Movies

Egglestone, Ralph: "For the birds", USA 2000, Pixar/Disney Picture Studios.

Jackson, Peter: "Lord of the Rings: The Two Towers", New Zealand/UK/USA 2002, WingNut Films/The Saul Zaentz Company

Lauenstein, Christoph; Lauenstein Wolfgang: "Balance", Germany 1989, HBK Hamburg/GhK Kassel.

8.2. Literature

Benecke, Mark (2011): The Numerology of 23. Skeptical Inquirer, vol. 35(3), p. 49-53.

- Beni, Gerardo (2005): From Swarm Intelligence to Swarm Robotics. In: Şahin, Erol; Spears, William M. (eds.): Swarm Robotics. SAB 2004 International Workshop Santa Monica, CA, USA, July 2004. Reviewed Selected Papers. Berlin/Heidelberg: Springer.
- Catmull, Ed (2012): PIXAR. 25 Years of Animation. 6. Juli 2012 bis 6. Januar 2013. Pressemappe vom 5. Juli 2012.
 - www.bundeskunsthalle.de/ausstellungen/pixar/pr_map_d.pdf [access: 8.9.2012]
- Eder, Jens (2008): Die Figur im Movie. Grundlagen der Figurenanalyse. Marburg: Schüren.
- Eder, Jens; Jannidis, Fotis; Schneider, Ralf (2010): Characters in Fictional Worlds. An Introduction. In: Eder, Jens; Jannidis, Fotis; Schneider, Ralf (ed.): Characters in Fictional Worlds. Understanding Imaginary Beings in Literature, Movie, and Other Media. Berlin: De Gruyter
- Horn, Eva (2009): Schwärme. Kollektive ohne Zentrum. Einleitung. In: Horn, Eva; Gisi, Lucas Marco (ed.): Schwärme. Kollektive ohne Zentrum. Eine Wissensgeschichte zwischen Leben und Information. Bielefeld: transcript.
- Karger, Angelika (1999): Wissensmanagement und "swarm intelligence".

 Wissenschaftstheoretische, semiotische und kognitionsphilosophische Analysen und
 Perspektiven. In: Mittelstraß, Jürgen: Die Zukunft des Wissens. XVIII. Deutscher
 Kongreß für Philosophie. Konstanz 1999. Workshop Beiträge. Konstanz: UVK.
- Lewis, David (1973: 84-91): Counterfactuals. Cambridge UK: Cambridge UP.



- Margolin, Uri (1989): Structuralist Approaches to Character in Narrative: The State of the Art. Semiotica, 75.1-2, 1-24
- Pieper, Matthias (1994): Computer Animation. Inhalt, Ästhetik und Potential einer neuen Abbildungs-Technik. Regensburg: S. Roderer.
- Rescher, Nicholas (1979): The Ontology of the Possible. In: M. Loux: The Possible and the Actual. Readings in the Metaphysics of Modality. Ithaca: Cornell UP, 166-81
- Ryan, Marie-Laure (1991): Possible Worlds. In: Hühn, Peter et al. (eds.): the living handbook of narratology. Hamburg: Hamburg University Press. URL: http://wikis.sub.uni-hamburg.de/lhn/index.php/Possible_Worlds [access: 28 Jul 2013]
- Şahin, Erol (2005): Swarm Robotics: from Sources of Inspiration to Domains of Application. In: Şahin, Erol; Spears, William M. (Eds.): Swarm Robotics. SAB 2004 International Workshop Santa Monica, CA, USA, July 2004. Reviewed Selected Papers. Berlin/Heidelberg: Springer.
- Schoemann, Annika (2003): Der deutsche Animationsmovie. Von den Anfängen bis zur Gegenwart 1909-2001. Sankt Augustin: Gardez!.