

A Review of Circus Classification Systems

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Classification systems allow for detailed and organized study of related items. The expansive and contradictory nature of circus makes it difficult to agree on one coherent, holistic classification system that constitutes "circus." However, a well-constructed system prompts readers to discuss, discover and learn more about skills, apparatus, disciplines, cultural and geographic variation, and history. This article examines several attempts to classify circus apparatus, disciplines and skills. The systems reviewed include the Gurevich system (Soviet Union, developed in the 1950s), the CNAC system (France, developed in the 1980s), the Hovey Burgess system (United States, developed in 1974), the Bortoleto system (Brazil, developed in 2017), the Dokucirco system (Mexico, developed in 2016) and the Gatewood system (United States, developed in 2023). We aim to provide readers with tools to expand the depth and breadth of circus through improved knowledge of each classification system, as well as a better understanding of how circus has been taught and conceptualized in different temporal and geographic contexts.

Keywords: circus, taxonomy, categorization systems, organizational systems, historical

Les systèmes de classification permettent d'étudier des sujets connexes de manière détaillée et organisée. Le cirque est un art très vaste et contradictoire, et par conséquent, il est difficile de s'accorder sur un système de classification cohérent et holistique qui présente le cirque dans sa globalité. Toutefois, s'il est bien conçu, un tel système invite le lectorat à discuter, découvrir et en apprendre plus sur l'éventail des compétences, des appareils et des disciplines, ainsi que les variations culturelles

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et géographiques, sans oublier l'histoire de l'art circassien. Cet article analyse plusieurs tentatives de classification d'appareils, de disciplines et de compétences. Nous passerons en revue les systèmes suivants : le système Gurevich (Union soviétique, développé dans les années 1950), le système CNAC (France, développé dans les années 1980), le système Hovey Burgess (États-Unis, développé en 1974), le système Bortoleto (Brésil, développé en 2017), le système Dokucirco (Mexique, développé en 2016) et le système Gatewood (États-Unis, développé en 2023). Nous souhaitons offrir au lectorat des outils qui permettront d'élargir les arts du cirque dans toutes leurs dimensions grâce à une meilleure connaissance des systèmes de classification, ainsi qu'une meilleure compréhension des méthodes d'enseignement et de conceptualisation du cirque à travers de nombreux contextes temporels et géographiques.

Mots-clés: cirque, taxonomie, systèmes de catégorisation, systèmes organisationnels, historique

Introduction

What is circus? "Circus" remains a loosely defined set of disciplines that are united by their showcase of unusual human skills and abilities, which often involve interaction with objects and animals. The spirit of circus is elusive, but might be characterized as follows:

[. . .] mendacious, eternally opportunistic, at turns demonic and statusseeking, absurd and charming, breathtaking and predictable; prone to material catastrophe and yet driven by unparalleled physical skills and spectacular showmanship. Culturally and geographically it is eclectic, yet also type-ridden. Alternately, sometimes simultaneously, it is conservative, outlawed, conformist, and transgressive. (Malamud 1)

The expansive and contradictory nature of circus makes it difficult to agree on one coherent, holistic classification system. It may, therefore, seem a useless or impossible task to organize circus into discretely defined categories of acts or skills. However, circus practitioners must often articulate an explicit logic of inclusion or exclusion when encountering certain challenges: What acts should be included in a single show? What skills should a school teach? How should a circus researcher organize their book? In all of these cases, one must use an organizational logic based on principles of similarity and difference.

This article reviews several attempts to classify circus apparatus, disciplines and skills under a particular logic. We aim to provide readers with 1) tools to expand the depth and breadth of circus through improved knowledge of each

classification system, and 2) a better understanding of how circus has been taught and conceptualized in different temporal and geographic contexts.

The benefits of classifying circus

As humans, we perceive and classify our observations to make decisions regarding the world in which we live (Mithen S46; Lakoff 14). This cognitive aspect of human processing has been studied in anthropology and related fields since at least the 1850s, when Lewis Henry Morgan first suggested that kinship (family) systems and terms were systematically grouped (Morgan, *League of the Ho-De-No-Sau-Nee* 6; Morgan, *Ancient Society* 24; Trautmann 268). Kinship terms continue to be studied not due to biological distinctions, but because they offer insights into the cognitive conceptualization and classification of cultures and societies.

By 1903, classification was generalized in anthropological and sociological circles through Durkheim and Mauss's monograph on primitive forms of classification (Bloor 67), which asserted that human methods of classification reflect social ordering, inclusion and exclusion. Some bases of classification and their study endure to this day, although both Morgan and Durkheim's work has been heavily criticized throughout the past century (Trautmann 269; Bloor 68), and their specific conclusions have been abandoned for more refined results and theoretical orientations. Whether we are studying the classification of kinship, colours (Segerer and Vanhove 247), animals (Finch 118–119), the body (Schapper 314; Urban 349) or circus, classification choices can be understood by identifying the variables at play across systems.

As we shall demonstrate, circus classification systems have historically been created out of necessity, usually in the context of pedagogical development and often involving minimal contact with (or even complete isolation from) other classification systems. As a result, circus classification can feel elusive and even arbitrary. According to Gloria Fuentes, "Circus techniques have uncertain boundaries, they constantly blend with each other, so any attempt to classify them, however useful it may be, will always have an arbitrary component" (1).

While there have been some attempts to discuss the theoretical aspects of classification as they apply to circus (most notably by Hovey Burgess in 1974 and Marco A. C. Bortoleto in 2017), these suffer from a number of limitations, including the scarcity of systems analyzed. In contrast, the main purpose of this article is to showcase a variety of classification systems in order to identify variables that systematically affect circus classification. In doing so, we do not make judgments on what *is* or *should be* considered circus (or not), nor do we make recommendations about which system is best. In fact, we believe that we can better understand the diversity of circus practices across geographies and history

when we can assess a diversity of circus taxonomies that use a wide range of classification logics.

We contend that a circus taxonomy is useful for a number of reasons. First, it can organize a comprehensive understanding of the extant skills, disciplines and apparatus available to artists, students, curators and audiences under the umbrella of "circus." Second, a circus taxonomy can provide common language and concepts for skills; there are important linguistic and geographic reasons to choose whether to call an apparatus "tissu," "silks," "split silks," "aerial fabric" or "ribbon." However, depicting one or more of these terms within a taxonomy can facilitate communication across languages and geographies.

An instructor or circus school may also wish to use a taxonomy to "facilitate internal coherence in a school setting and align a curriculum with objectives" (Bortoleto 60, translated). Each circus school has its own microcosm of beliefs, resources, missions and needs. Schools may wish to promote certain types of movements or apparatus, staff their instructor pool with a variety of specializations, or encourage an intentional diversity of skill types to maximize students' future employability. Some taxonomies may depict progressions of apparatus or skills taught in a school or elucidate the steps necessary to learn them.

Circus taxonomies can be inspirational as well. As they are, they can display the boundaries of human creativity at a certain place and time in history. They may also record physical cultural practices that might not have been recorded in other historical documents—for example, which acts were performed and how they were conceived in relation to other acts. By examining a circus taxonomy, viewers may envision novel combinations or the development of new skills and apparatus.

A guide for assessing circus organization systems

It can be enormously helpful for circus practitioners to review circus taxonomies. We propose a set of questions that can help readers better understand and use circus organization systems:

What is the purpose of the classification system?
 This may include educating circus students or the general public, organizing a book's contents, producing a show or curating a museum exhibit.

A particular system may have been created to serve multiple simultaneous purposes.

2. What does the classification system use to group items?

A non-exhaustive list includes the origin of the skill or apparatus, visual similarity between skills or apparatus, the size of the object, the type of human physical movement required to use an apparatus, the effect of the item as perceived by an audience, the number of people required to perform the skill and more.

3. What is included in the classification, and what is missing?

Are any skills or apparatus missing? Is one area of the classification system over-developed, while others are under-developed? Is there a rationale for expanding some areas but not others?

4. What beliefs or value judgments are implicit in a system?

Taxonomies may attempt to exert power or control over an art form through intentional decisions about what is depicted and what is not. Does a taxonomy reproduce hierarchies of value or prestige perceived by an audience or performers? Does a taxonomy's organization reflect gendered divisions of labour in society or in circus? Is a taxonomy inclusive (or over-inclusive), or does it gatekeep by limiting its entries?

5. How does the system represent relationships?

The visual graphic of a system gives information about the relationships between items. One can ask: How are systems organized? Are there intermediate categories between items? Is the number of levels appropriate? Are systems organized linearly, as a concept map or in another way? Is there a spatial element to the placement of certain entries in relation to one another? Do relationships between entries span categories? If so, by which criteria are these relationships determined?

6. Is the classification system flexible enough to incorporate new entries?

Circus arts are continuously expanding and changing. Some systems that focus on a particular realm of circus (for example, an organizational system for juggling moves) might not be concerned with the development of new aerial apparatus. On the other hand, a system that organizes apparatus may be easily modified to place an aerial spiral next to an aerial pole or lyra, or even in a category of invented apparatus.

Extant circus systems

As students, teachers and practitioners of circus arts, we firmly believe that "[t]he desirable system of classification is one that facilitates—but does not limit—both training and understanding of circus techniques" (Burgess 70). To date, academic attempts to discuss and describe circus classifications appear to

be limited to Burgess and Bortoleto's manuscripts, each of which proposes its own system in turn. This manuscript is no different. However, we will present as many circus classification systems as possible to ensure that current and future readers can better understand the variety of systems available to them.

This article aggregates circus organizational systems originally published in English, Russian, French, Portuguese and Spanish. We have included all of the circus taxonomies we are aware of that meet certain criteria. We selected taxonomies that 1) were identifiable between 2019 and 2023, and 2) attempted to encompass the full range of circus acts; an excellent taxonomy of juggling moves, for example, would not be included because it was limited in scope (Jost). We were unable to include the large number of school curricula and books with tables of contents, glossaries or unorganized encyclopedic lists of circus acts, though this would be a fascinating subject for future study. Instead, we selected several taxonomies from the aforementioned categories to serve as exemplars.

We have organized circus classification systems into three major types based on the presumed purposes of their creators. These types include pedagogicallymotivated systems, academic-practitioner systems and book systems.

Pedagogically-motivated systems

Pedagogically-motivated classification systems are those produced by circus schools for primary use within a school. These include the Gurevich system and the CNAC system. Each circus school operates with an implicit or explicit classification system by which students progress through educational sequences, departments are organized, and skills are included or excluded from instruction. The organization of any one school's curriculum may be intentional (e.g., by requiring student proficiency in certain skills, prioritizing certain skill sets among teachers, or excluding areas of study due to a belief that a certain apparatus or skill set "isn't circus"). A school may also unintentionally organize their curriculum (e.g., by deprioritizing skills due to an inability to retain teachers with certain skill sets or attract students interested in certain skills). A thorough analysis of circus school curricula is not the purpose of this article, though we believe there is much to learn from such an analysis.

The Gurevich system, Moscow Circus School (1950s)

The Gurevich system is the first known attempt to visually or conceptually categorize circus skills. It was created by Zinovy B. Gurevich and used as the basis of

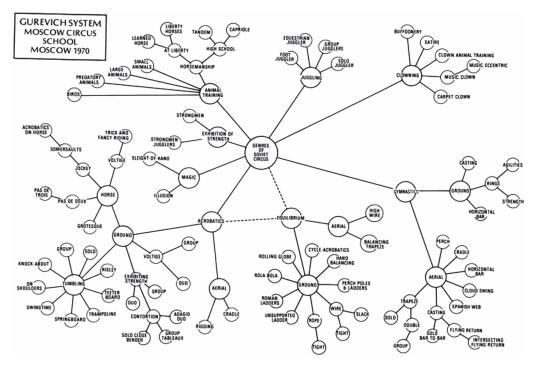


Figure 1. The Gurevich system, Moscow Circus School

the curriculum at the prestigious Moscow Circus School (Burgess 68). Originally in colour, the system was brought from the Soviet Union to the United States by Hovey Burgess, who translated his black-and-white copy of the graphic and published it. The chart depicts many circus disciplines that were popular at the time in the Soviet Union. Though the graphic was created for the Moscow Circus School, the school itself instructed only five of the included areas: juggling, hand balancing, tight wire, tumbling and gymnastics (Burgess 68). The Gurevich System is possibly the most recognizable circus classification system in the world.

Inclusions and relationships

The Gurevich system uses parent-child relationships to depict the skills, groupings, disciplines and apparatus used to create circus. For example, teeterboard, trampoline and springboard are grouped as children under the parent category of Ground Acrobatics. Gurevich's system also spatially places similar skills or apparatus near one another. Thus, within the Equilibrium category, rolling globe and rola bola are placed closer to one another than they are to tight wire or slack wire.

Groupings

One confusing aspect of the Gurevich system is that it groups items using multiple logics, all within a single system. Items are grouped by:

- 1) the apparatus or item(s) needed to perform an act (e.g., trapeze, high wire, birds)
- 2) actions that comprise an act (e.g., flying return [on flying trapeze])
- 3) the people or number of people engaged in the action (e.g., *group* jugglers, *solo* jugglers)
- 4) the placement of the act (e.g., solo *close* bender [contortion], tumbling *on shoulders*)

Flexibility

Purportedly, the Gurevich system was updated in its time (Burgess 68), though we are unaware of any modern updates. As a result, it appears woefully out-of-date. By today's standards, it seems to over-emphasize some circus arts that are not widely practiced today in many countries (such as horsemanship), under-emphasize other circus arts popular in modern circus (such as cycle acrobatics) and completely leave out other circus arts that are now common (such as Cyr wheel).

Beliefs

The Gurevich system remains an important contribution to this day. Unfortunately, it lacks a written rationale or description of its development provided by Gurevich himself; one must surmise the purposes of the system and the logic underlying certain decisions. Readers may wonder, "Why is horizontal bar listed twice, in both Ground and Aerial Gymnastics? Is the system pointing out the existence of different apparatus, or different performance styles on the same apparatus? Why are wire and rope walking both categorized as Ground Equilibristics, but high wire is listed under Aerial Equilibristics? Did Soviet artists perceive the act of wire walking as being fundamentally different when practiced two feet off the ground versus twenty feet off the ground? How high must a wire be to differentiate an aerial art from a ground art? Could it simply be an error of translation?" (We were unable to locate the original system in Russian, and we acknowledge that the translations may also be imprecise.) As we will see, the provocative nature and unanswered questions of the Gurevich system inspired other academic practitioners to continue developing their own systems.

The CNAC system (1980s)

The French Cirque de Châlons was originally established around the 1890s. Almost a century later, in 1983, it was made permanent with the construction of a national circus school, the Centre national des arts du cirque (CNAC). As a school, the CNAC initially focused on three areas: the College of Higher Education for Circus Arts, the advanced and professional training section, and the documentation and research department. A classification system of circus arts was developed for the school's advanced and professional training section ("A history of the Centre national des arts du cirque").

Inclusions and relationships

The CNAC classification system lists five main groupings: Equilibrium (body in balance), Aerial Activities (body in the air), Acrobatic/Stunt (body on the ground or moving dynamically from the ground), Manipulation (of objects) and Circus Actor. Within these areas, some acts appear in multiple categories. For example, perch is included as a balancing act (a base balances a pole with a flyer on top) and also as an aerial act (a flyer balances on a pole in the air). The trapeze apparatus appears in three separate listings, while all rope apparatus are grouped together under a single listing, which may indicate different teaching emphases at the school. Other possible acts, such as bungee or plate spinning, are not included.

Groupings

The CNAC system uses a common set of categories: Equilibrium, Aerial Activities, Acrobatic/Stunt, Manipulation and Circus Actor. Within Equilibrium and Acrobatic/Stunt, however, it explicitly identifies a "with accessories" subcategory to differentiate acts that use props from those that do not. Aerial Activities, Manipulation and Circus Actor have no such designation. The author implies that Aerial Activities should not include props, but Manipulation and Circus Actor should.

Flexibility

The CNAC system's broad five-level categorization makes it easy to add new acts under one group. This has allowed the school to continue developing its

CIRCUS TECHNIQUE			
Equilibrium	Aerial activities	Acrobatic/Stunt	
Without accessories Hand-to-hand (static) With accessories Bola Chairs Stilts Unicycle Ladder Perch Rola bola High wire Tight rope	Silks: split, sling Trampoline Perch Rope: corde lisse (single, double, triple, cloudswing) Flying trapeze Static trapeze Washington trapeze Rings Straps Hoop (lyra)	On the ground: Contortion Dynamic handstand With accessories: Hoop Chairs Ladder Russian bar Russian swing Chinese pole or mast Teeterboard Springboard	
Manipulation	Circus actor	Trampoline	
Juggling Lasso Devil stick Diabolo Whip	Clown Theatrical: Dance Mime Mask Commedia dell'arte Jester	Bicycle "Corredores elasticos"	

Figure 2. The CNAC system (Curós 25)

classification system and subsequently create a circus encyclopedia that proposes four axes of circus arts: Acrobatics, Clowns, Juggling/Magic and Dressage ("The Circus Art Encyclopedia"). This suggests that the CNAC's conception of circus has shifted.

Beliefs

Based on this system's classification, one would expect CNAC performers to see circus as a human endeavour showcasing the range of physical showmanship in strength, theatricality and manipulation of their environment. Thus, clowning is included in circus, but animal acts are not. Furthermore, the expansion of the trapeze classification, as well as the contraction of silks and rope into a single category with sub-entries, offer insight into which activities were most emphasized at the school.

Academic-practitioner systems

Academic-practitioner classification systems are those developed by one or more circus artist(s) primarily out of personal or academic interest. These academic

practitioners may have instructed others in circus arts, but their purpose was not to develop a pedagogy for a formal circus school. As we will see, several of these practitioners were influenced by the pedagogically-motivated systems described in the previous section.

The Hovey Burgess system (1950s–1970s)

Hovey Burgess is a former US circus performer who went on to become a hybrid researcher, practitioner and educator of circus arts. Burgess said of his work in the 1950s and 1960s:

I found college kind of boring and I found the circus almost antiintellectual. I couldn't find the balance in that. I would be in a circus and I would be discontent, and I would be at university and be discontent, and I would go back and forth. Nothing was just right until the situation arose where I started teaching at NYU, which was the best of both worlds. I had the circus world and I had the intellectual challenges. (Scholl)

Burgess ultimately worked at New York University's Tisch School of the Arts for over fifty years. Beginning in 1956, he sought to define the fundamentals of movement that all people and animals use to create circus arts. He also found few materials to guide his exploration. At the time of the development of his system, Burgess was aware of a gymnastics manual and an unclassified list of circus stunts, but unaware of the Gurevich system until after he had already begun developing his own system (Burgess 68).

Category	Preliminary	Essential	Diversified
Juggling	Balancing objects	Toss juggling: balls, rings clubs	Gyroscopic Juggling: Devil sticks, Diablo, plate spinning, etc
Equilibristics	Headstands and hand balancing	Balancing: on rolling objects (unicycle, rolla bolla, etc), on "stilting" objects (stilts, unsuported ladder, etc) and human columns.	Rigging: Trapeze, horizontal bar, slackwire, tight wire, etc
Vaulting	Jumping	Turning the body along its long, medium and short axes	Catapults

Figure 3. The Hovey Burgess system

Inclusions and relationships

The Hovey Burgess system used the research available in its time to compile a list of non-specific physical skills, which were illustrated using a non-exhaustive list of apparatus and disciplines. In this system, balancing on a trapeze bar, a rola bola or another person are similar skills, and it is true that a circus artist who attempts those skills must have an especially refined sense of balance. However, the techniques needed to master the wide array of apparatus classified as Equilibristics are more specialized than the Hovey Burgess system depicts. Interestingly, Burgess did not include theatrical skills such as clowning in his system. He explicitly sought to keep circus and theatre separate, stating that "watereddown circus for actors is ultimately self-defeating" (Burgess 70).

Groupings

The Hovey Burgess system consists of three categories of movement: Juggling, Equilibristics and Vaulting. Each category includes suggestions for how to apply it. The first column lists some entry-level skills ("preliminary" skills) for the category of movement. The second column offers suggestions of fundamental skills ("essential" skills), and the third column suggests skills of greater technical complexity ("diversified" skills). However, it is not always easy to know where to list certain types of acts that are not already listed. It is unclear whether there is an option for an act to be listed under two categories—for example, Russian bar, which relies on both equilibristics and catapults.

Ultimately, Burgess's system represents general all-around circus skills in a way that may seem essential for a circus student, but unnecessary for a specialized circus performer. Nevertheless, this system laid the groundwork for circus classification systems that did not rely on apparatus, but instead on the physical skills necessary to practice the art.

Flexibility

In 1974, Burgess published his attempt to uncover "this essence of circus" in an article titled "The Classification of Circus Techniques," which later led to a full-length book called *Circus Techniques: Juggling, Equilibristics, Vaulting* (1983), in which he sought to define circus skills using the long view of history. Burgess describes the basis of his analysis:

[The] important distinction between the very ancient "circus-type" skills of contortionists, equilibrists, tumblers, jugglers, clowns, etc., and the

modern form of "circus," even though the latter is the most obviously significant depository of the former. (Burgess 65)

Unfortunately, we are unaware of any modern updates to the Hovey Burgess system.

Beliefs

The Hovey Burgess system is a concise teaching tool that is fortunately accompanied by a manuscript describing its goals and intentions. Burgess sought to define circus skills that transcended time and place by defining the skills that were necessary for circus artists regardless of historical era or geographic region: "the ancient acrobats, medieval *jongleurs*, courtly vaulting masters, etc.—and the as yet unknown innovations that lie somewhere in the future" (Burgess 66).

The Bortoleto system (2000s–2017)

Dr. Marco Antonio Coelho Bortoleto is a former professional circus artist and acrobatics teacher. He currently works as an associate professor in the Physical Education Faculty at the University of Campinas in Brazil. Bortoleto started to develop his own classification system with the collaboration of Gustavo de Arruda Machado in the early 2000s (Bortoleto 67). Later, he and Machado discovered the CNAC system, which profoundly influenced them. Bortoleto wanted to create a more functional classification system, so he developed another one with research partner Rodrigo Mallet Duprat in 2007 (Duprat and Bortoleto 178). Bortoleto continued to develop his own classification system while also recognizing that it was "impossible to provide an exhaustive classification of all circus modalities" (Bortoleto 70, translated). In his 2017 model (Figure 5), he prioritized the "principles of [taxonomic] classification combined with an interest in didactic [teaching] circus" (Bortoleto 70, translated).

Inclusions and relationships

Initially, Bortoleto and Machado classified circus skills based on four levels of materials used: acts with large apparatus, acts with medium apparatus, acts with small items and acts with the body (Bortoleto 68). The Duprat and Bortoleto system (Figure 4) was classified by type of apparatus and further divided into types of skills. For example, Balancing is divided into *Balancing with Objects*,

Acrobatics	Aerial	Different types of trapeze, fabrics, lyra, cubes, rope	
	Body	Floor (solo), duo, trio and group, bamboo, chinese mast, contortion, icario games (foot juggling).	
	Trampoline	Acrobatic trampoline: mini-tramp; Russian bridge, Russian stretch	
Manipulation	Objects	Juggling (balls, clubs, devil stick, diabolo, fire) Swing (clubs and batons), escapism, contact, illusionism, sleight of hand, magic, fakery, puppetry, ventriloquism	
Balancing	Objects	Clubs, batons, foot juggling	
	On objects	Wooden handle, unicycle, wire, tightrope, bicycle, rola rola	
	Acrobatics	Icarian games (foot juggling of people), hand-to-hand (duo, trio, and group), Paradismo (floor and hand-clasping)	
Staging	Body actors	Performing dance, music, art	
	Clowning	Different techniques and styles	

Figura 11 - Adaptação da classificação das modalidades circenses da CNAC com fins didático-pedagógicos

Acrobacias	Aéreas	Diferentes modalidades de trapézio, tecido, lira, quadrante, corda.	
Corpóreas		De chão (solo), duplas, trios e grupos, banquinas, mastro chinês, contorcionismo, jogos icários.	
	Trampolim	Trampolim acrobático; mini-tramp; báscula russa; maca russa.	
Manipulações de objetos		Malabares (bolas, claves, devil stick, diábolo, caixas, com fogo),	
		swing (claves e bastões), tranca, contato, ilusionismo, prestidigitação,	
		mágica, faquirismo, fantoches e ventriloquia.	
Equilibrios	de objetos	Claves, bastões, antipodismo.	
	sobre objetos	Pema-de-pau, monociclo, arame, corda bamba, bicicleta, rolo	
		americano (rola-rola).	
Acrobáticos		Paradismo (chão e mão-jotas), mão a mão (duplas, trios e grupos)	
		jogos icários.	
Encenação	Artes corporais	Arte cênica, dança, música.	
	Palhaço	Diferentes técnicas e estilos	

Fonte: Duprat; Bortoleto (2007).

Figure 4. The Duprat and Bortoleto system (Duprat and Bortoleto 178)

Object Balancing and Body Balancing. This allowed for the inclusion of acts in multiple categories without duplication.

Bortoleto continued developing his circus taxonomy into the present version of his own system (Figure 5). His six main areas of circus include Showman/Clowning, Object Manipulation, Balancing, Aerial, Acrobatics and Other (CNAC original areas are underlined). His Balancing section is further divided into Object Balancing and Balancing with Objects, reflecting his consistent interest in the relationships between the types of props needed for specific acts.

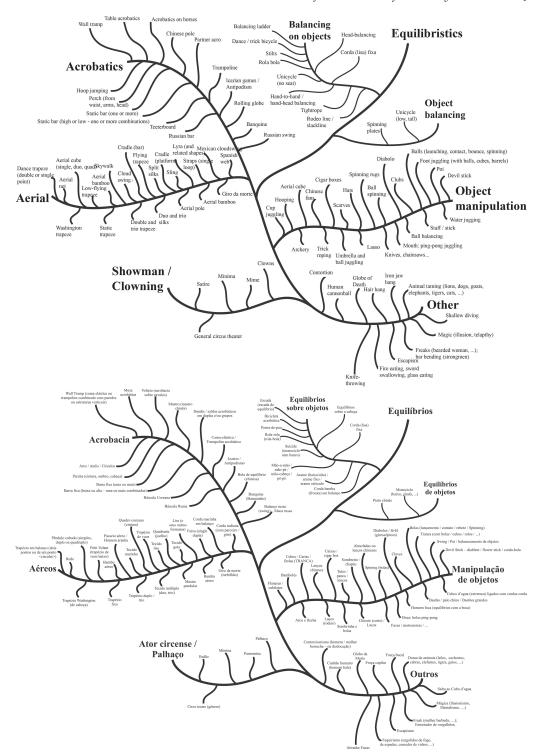


Figure 5. The Bortoleto system (Bortoleto 71)

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Groupings

Bortoleto's early system, developed collaboratively with Machado, was simplistic in its devoted focus on classification based on props, which were then subdivided by size. While the system was straightforward, Bortoleto was dissatisfied with how it captured the differences between circus acts, as is reflected in his later classifications. The system he developed with Duprat (Figure 4) reflects the CNAC system's influence with categories including Manipulation and Showmanship/Clowning, which are further subcategorized into *Theatrical*. Thus, props continue to be present in the subcategories. Bortoleto also specifies the difference between *Balancing on Objects* and *Object Balancing* to differentiate props being used to showcase the artist's balance from props that are balanced by the artist.

Flexibility

The changes to both versions of Bortoleto's system are significant enough to show that while it may be sufficiently flexible to accommodate new acts, no system is flexible enough to withstand a total change of its main groupings. His latest version emphasizes flexibility by including an Other category, which can account for things we may not yet know or items that don't easily group together elsewhere.

Beliefs

The 2017 model of the Bortoleto system attempts to revise the original CNAC system, which is reflected in the separation of acts (e.g., *Multiple Trapeze* vs. *Static Trapeze* vs. *Duo Trapeze*) and the reworking of Aerial Acts into a main grouping. Duprat and Bortoleto also depict magic acts, not as presentations of trickery but as individual magic skills that may be employed for successful presentations. Bortoleto's system differs from the CNAC system in that it conceptualizes a strong emphasis on props.

The Big Map of the Circus Genres by Dokucirco (2016)

Dokucirco is an organization supported by the Centro Mexicano de Documentación Circense (Mexican Centre of Circus Documentation). In addition to publishing the Dokucirco magazine and blog, the organization authored

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"The Big Map of the Circus Genres," which is the first known system to be directly adapted from the Gurevich system. The Dokucirco system is based on Gurevich's pedagogical system, but its developers state an explicit purpose: to "give a global view of circus disciplines and facilitate a first approach to people interested in learning about them" ("ARCHIVO DIGITAL," translated).

Inclusions and relationships

The Dokucirco system is incredibly comprehensive and organizes roughly 150 circus acts into different categories. Its entries are classified into the parent categories of Magic, Aerial, Clowning, Animal Acts, Acrobatics, Balancing, Juggling, Rodeo, Main Attractions and Other Acts. A wide array of common and rare circus acts have been placed into these categories. The Dokucirco system is the first system reviewed to display three or more category levels—up to two levels of sub-categories and sub-sub-categories can be added under each parent category. It also includes categories other systems omit, notably Animal Acts, a wide array of Clowning presentations and rare acts such as skywalk.

Groupings

Some skills are named after the source of the act (either the person who first made it possible/popular or its perceived origins). Rodeo, Magic, Main Attractions and Animal Acts are major organizing categories, which is unique among the systems reviewed in this article. Some items exist as parent categories and as entries under another category; for example, Clowning is a category unto itself and is also grouped under Rodeo.

Flexibility

The Dokucirco system is easily accessible in an online interactive format ("ARCHIVO DIGITAL"). As a result, it has the potential to be viewed more globally than other systems historically have been. Unfortunately, the graphic is somewhat hidden within menus below the main content of its webpage, although physical prints of the graphic have also been made. The Dokucirco system does not yet appear to be widely known throughout the circus world, and the graphic has not yet been formally translated from Spanish (as far as we know, our attempt at translation is the first).

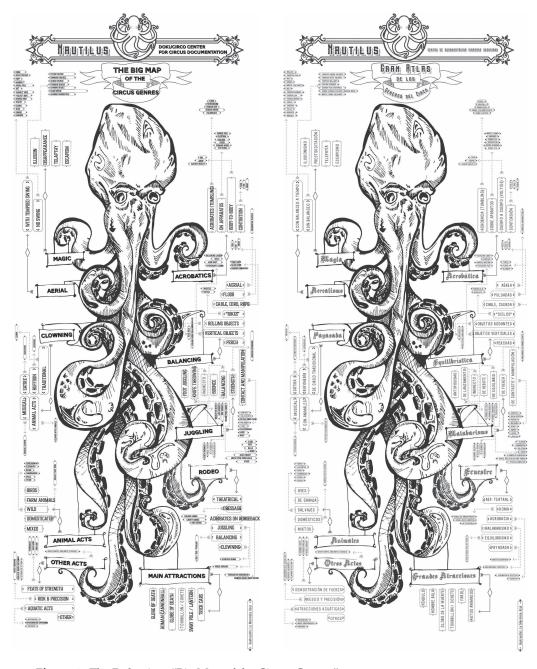


Figure 6. The Dokucirco "Big Map of the Circus Genres"

Beliefs

The Dokucirco system was developed with the knowledge that the dynamic nature of circus will outpace our ability to categorize it. The organization describes their system as "broad, [but] not intended to be exhaustive" since "the modification of apparatus and the invention of new exercises mean that the circus cannot be pigeonholed" ("ARCHIVO DIGITAL," translated).

The Gatewood System of Modern Circus Arts (2020–2023)

In 2019, public health researcher and recreational circus instructor Amanda K. Gatewood encountered the Gurevich system and was surprised to find that no recent updates to it had been made publicly available. She recognized that the changes in circus over time, such as the proliferation of aerial arts and the decline in animal acts, were not reflected in the Gurevich system. Gatewood's system is the first to be shared in colour, though the Gurevich system was also originally in colour. In 2023, she published a comprehensive infographic of her classification system titled "Modern Circus Arts" in the Metro Silicon Valley weekly newspaper to accompany an article about recreational circus artists (Prather).

Inclusions and relationships

Gatewood always intended for her system to be printed as a commercially available poster, and her system is the only one with a copyright symbol embedded in it. The classification is incredibly inclusive, listing nearly 300 skills, apparatus and roles within circus that require specialized skills. The listings are also relational; skills are frequently placed near or linked to both their parent skills and skills that are similar in technique.

Perhaps the Gatewood system's most important contribution is that it links apparatus and skills *across* parent categories. For example, both duo and flying trapeze are linked to cradle (trapeze is listed as an aerial act because it is rigged from above, while cradle is a ground act because the apparatus sits on the floor). Trapeze is also linked to double-point aerial pole because the latter is visually similar to an unevenly-rigged trapeze. Lastly, trapeze is also linked to rope because circus artists may wish to use both the trapeze bar and the ropes that hang it (this linkage is missing for other apparatus—for example, lyra, in which artists also frequently use the spanset or rope).

The Gatewood system also includes elements that were left out of other circus taxonomies but are commonly seen in circus shows or at the circus itself: detailed wheel and aerial sections, dance, flow arts, clowning, sideshow, martial arts and crew.

Gatewood's system is the first to explicitly include flow arts and sideshow (which are frequently seen in circus shows), in addition to circus crew members

such as riggers. These inclusions were criticized because those who perform the acts mentioned above often do so in venues that may not be recognized as "legitimate" circus performance spaces, such as festivals, burlesque venues and fire gatherings ("burns").

Groupings

The Gatewood system is incredibly comprehensive and emphasizes usability over theory. It may appear as though some of the text in the graphic is arbitrarily sized, implying that some apparatus, skills or disciplines are more important or popular than others. In reality, the text is sized to enhance findability and prevent the graphic from becoming too cluttered.

Gatewood's classification recognizes that circus artists may use an apparatus in an endless diversity of ways. Therefore, it attempts to express commonalities between aspects of the apparatus themselves rather than kinetic similarities of human movement, historical development of the apparatus, or a shared vocabulary of movements.

Flexibility

Gatewood sought to modernize the Gurevich system through iterative review of other circus organization systems, YouTube videos, live circus performances, publicly available information on the Internet (e.g., Wikipedia, List) and websites of circus prop vendors such as Flowtoys and Renegade Juggling. In addition, her system was crowd-sourced. It was first shared in handwritten hard-copy format with members of the Madison Circus Space in February 2020.

In March 2020 and August 2023, Gatewood requested open-source feedback from the Circademics Facebook group. While her system was being developed, she was unaware of the other circus organizational systems developed in France, Brazil and Mexico; the Circademics group made her aware of those systems. The Gatewood system has been updated several times and discussed in German, English and Polish circus publications (Gatewood, "Tworzenie Systemu").

Beliefs

Gatewood intended her system to be an entry point into the circus world for recreational circus students, artists and enthusiasts. As a circus artist who began

MODERN CIRCUS ARTS

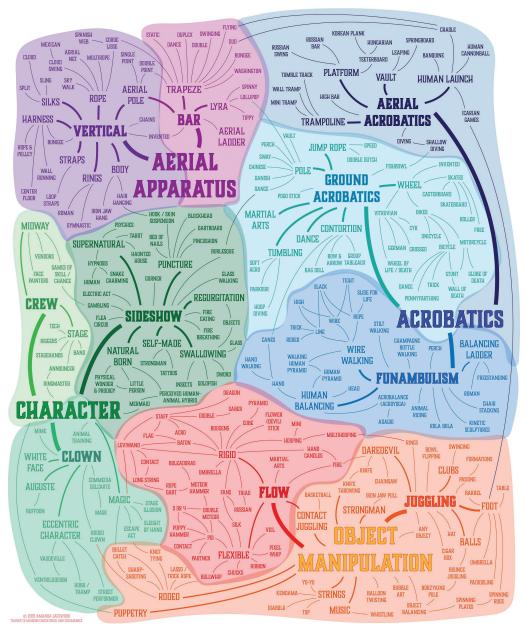


Figure 7. The Gatewood System of Modern Circus Arts

learning circus in her thirties, she understood that recreational circus artists may be learning circus skills later in life. She explains:

Recreational circus artists often find circus through a single circus discipline—usually by taking a class in our communities. We're often unaware of circus culture, circus history, and the diverse array of circus disciplines that are out there. I personally wanted to branch out to new circus skills that were similar to (or radically different from) circus disciplines that I already enjoyed . . . [but] I wanted to learn a new circus skill that used movements that I was already familiar with. So I started researching and found an enormous amount of information about modern circus apparatus and disciplines. (Gatewood 2023)

Though this lack of circus awareness may be prominent among the general public, it may also apply to highly skilled performers who enter the circus world after a competitive sports career with no previous involvement in circus.

Books about circus that also provide taxonomies

Other classification systems have been created to organize circus, with or without the authors' intent; for example, books about circus are organized implicitly or explicitly using the authors' own mental classification systems. While there are hundreds of circus books, we will discuss four examples in this article.

Implicit organizational systems

Some circus books give readers a glimpse into the author's *implicit* organizational systems through their chapter structures or glossaries. Consider the organizational structures of the following three books:

Tait and Lavers, Speaight and Huey did not intend to propose organizational systems for circus. These "systems" aimed to organize the diverse collections of information about circus contained within the authors' books using their own implicit mental groupings. Speaight included a rather standard list of items that might be seen in a circus show, while Tait and Lavers included chapters dedicated to discussion of cultural displays seen in circus—such as depictions of gender, sexuality, race and politics—as well as a section about the spectators themselves. Huey included a list of 100 circus terms listed alphabetically in English and translated into nine languages; his intention was to create a promotional reference for circus troupes and organizations to share with media who

A History of the Circus by	The Routledge Circus Studies	The International Guide to the
George Speaight	Reader ed. by Tait and Lavers	Circus by Rodney Huey (ed).
	(ed).	
Chapter III: The Circus in	1) Aesthetics	1) The Circus Setting
Britain in the Nineteenth	2) The clown	2) People and Productions
Century	3) Cross-arts	3) Aerial Acts
1) Circuses	4) Gender and sexuality	4) Acrobatic Acts
2) Proprietors	5) Race	5) Animal Acts
3) Horse Acts	6) Sideshows	6) Balancing Acts
4) Ground Acts	7) Child performers	7) Clown Acts
5) Aerial Acts	8) Spectators	8) Juggling Acts
6) Animal Acts	9) Origins	9) Specialty and Daredevil
7) Clowns	10) Politics	Acts
8) Ringmasters and Others	11) Physical exceptionalism	
9) The American Invasion	12) Animal performers	
	13) Presents	

Figure 8. Comparison of book table of contents (Tait and Lavers v-ix; Speaight 5–6; Huey 6–21)

were likely to write about their shows (Huey 2–5). This resource is particularly interesting because it includes robust descriptions of aerial, acrobatic and balancing acts, but few juggling or clown terms.

Explicit organizational systems

Few circus books explicitly articulate their organizing principles by presenting a fully-fledged classification system. One book that does contain an explicit organizational system was written by German juggler, interpreter and circus researcher Rolf Lehmann, who lectured internationally and wrote a thesis focused on circus in 1962 (Friday 62). In 1979, he wrote *Circus: Magie der Manege*, which is available only in German. The book's purpose is not to propose or examine a circus organizational structure; rather, it gathers 205 colour photographs from three photographers and uses an original taxonomy to structure them. Lehmann shared his detailed circus taxonomy, more than one-third of which is comprised of wild animal training, because he had a personal interest in the subject (Riggins 26). The taxonomy features three categories—Animal Training, Acrobatics and Clowning—each of which is further broken down into sub-categories.

Discussion

Classification systems allow for detailed and organized study of related items. As the basis of organization and exhibition, they are necessary for curating items into logical displays that enhance understanding of their similarities and

differences. Just as biological and kinship classification systems allow us to better understand the diversity of animals and societies without fundamentally impacting their behaviour, circus classification allows us to better understand the multiplicity of circus practices without fundamentally impacting circus artists. Even a somewhat arbitrary circus taxonomy is valuable, as it can offer insight into how circus is perceived and practiced within its culture, time and region of the world. All systems discussed in this article can be considered with the following caveat expressed by Bortoleto:

I recognize, *a priori*, that many circus modalities may not have been cataloged and therefore were not included in the taxonomy presented here. In other words, even after many years of research and observation, I recognize that much still escapes my singular and restricted purview. In fact, I recognize that my capacity for analysis is limited, contrary to what happens with artistic creativity. As a result, any didactic instrument, such as the one I present on this occasion, is also limited in nature, though this does not diminish its reflexive or pedagogical importance. (Bortoleto 59–60, translated)

All of the systems discussed in this article have shortcomings due to the limited purview of their authors, who are situated in their particular geographies, languages and times. Furthermore, circus artists have creative potential that outpaces any attempt to catalogue circus itself. However, we can identify several useful insights from the classification systems surveyed.

First, we observed that most of the systems discussed were developed in relative isolation. Authors were generally unaware of other circus organizational systems as they developed their own. Those who were aware (Burgess, Bortoleto, Dokucirco and Gatewood) knew of only a single other system. The language barriers and regional isolation are somewhat surprising, given that circuses themselves frequently cross national borders and employ an array of international artists. In presenting our best attempts at English translations of several systems, we hope to begin aggregating classification efforts in circus. We believe that proliferating these systems is critical to enhancing global understanding of the circus classification work underway in our world.

Second, we acknowledge the Western-centric nature of these circus classification systems, which rarely foreground the enormous contributions of circus arts originating in Asia and the Global South. To date, none of the current systems adequately credit the lineages of their influences (e.g., French, Russian, Chinese, Japanese, Romani, Italian *commedia dell'arte*, Quebecois, New American, British panto), though many do acknowledge regional arts or excellence (e.g., Indian hammock, Russian bar, Mexican cloudswing). The Gatewood system attempts

to include a wide variety of circus arts from around the world (e.g., martial arts, bowl flipping); however, it disperses them into multiple categories, while American circus rodeo arts are aggregated under a single umbrella category. Interestingly, both the Dokucirco and Gatewood systems acknowledge rodeo, but we can see the authors' different cultures in their conceptualizations of the term—Dokucirco includes clowning and many types of riding, while Gatewood emphasizes gun and lasso tricks.

Third, we found that the purpose and use of a particular classification system have a critical impact on the decisions made during its development. For example, circus schools may prefer to use a system that focuses on fundamental skills over one that groups skills and apparatus according to visual similarity. In contrast, a circus show producer may prefer to use a system that relies on visual similarity to curate a seemingly diverse set of acts.

Fourth, each classification system, while subject to imperfections, reflects how cultures change in relation to circus. In other words, each system is "right" for its time and place. For example, animals were prominently represented in systems developed in the 1980s and earlier. Over the past decade, modern systems either barely mention or entirely omit animal acts, which reflects the change in audience attitudes in many parts of the world regarding the use of animals in circus. Aerial arts were thinly represented until the 2010s since there were fewer apparatus, and some earlier systems even failed to differentiate aerial acts from other ground-based balancing or acrobatic acts. However, due to the current proliferation of aerial arts and apparatus, modern systems devote substantial space to aerial arts.

Lastly, most circus classification systems suffer from undefined theoretical aims and unclear methodological practices. Future systems must be able to clearly articulate their purpose and design. Therefore, we challenge future developers of circus classification systems to be transparent and explicit about their criteria and intended audiences, as identifying the variables that influence classification systems allows circus researchers to better understand and use them.

We would like to conclude this discussion by identifying several areas of future research. First, we are unaware of any extant circus classification system based on the origins or historical development of skills or apparatus. We believe such a system would help practitioners understand how new acts are invented and how naming conventions are applied (and revised) in circus, which might spur creativity in our community. Second, to our knowledge, there has been no comprehensive international analysis of circus school organizing principles (e.g., departmental organization, curricula or graduation requirements). The diversity of circus training may help circus school leaders plan their curricula and help students choose which school to attend. Third, by understanding circus

Categorization system (type)	Origin	Year	Purpose	Influences
Gurevich System (pedagogical)	Soviet Union	1950s- 1970s	Basis for curriculum for Russian Circus School in 1950s-1970s	School curriculum
CNAC System (pedagogical)	France	1980s	Curriculum and basis of school pedagogy	School curriculum
Circus school curriculum (pedagogical)	International	N/A	Describe a school's pedagogy, interests, or organizational structure	School curriculum; Other circus schools
Hovey Burgess System (academic- practitioner)	United States	1974	Uncover the "essence of circus" and a basis for teaching through analysis of movements that are universal to all circus performers (including animals)	Gymnastics manual; Personal practice
Bortoleto (academic- practitioner)	Brazil	2017	Interest in organization and teaching	CNAC; Personal practice
Dokucirco (academic- practitioner)	Mexico	2016	Broadly categorize modern circus areas	Gurevich; Personal practice
Gatewood (academic- practitioner)	United States	2020- 2023	Serve as a reference of all modern circus apparatus and skills; To aid circus practitioners in diversifying their skills	Gurevich; Personal practice
Circus books	International	N/A	To organize contents in the book	Implicit or explicit author beliefs

Figure 9. A list of circus organizational systems

classification systems, we can examine broader relationships between cultural systems. For example, in Russian, the word *ruka* refers to what English speakers identify separately as *hand* and *arm* (Luzhkova 11). How might the classification of body parts or other concepts in different cultures affect the conceptualization of different circus acts? How might other belief systems include or exclude certain groups, artists or acts from what is considered circus?

Conclusion

This article examined systems originally published in Spanish, French, Russian, Portuguese and English to facilitate discussion of circus classification. There has not been an organized, comprehensive review of multiple circus organization systems in English since Burgess's 1974 publication contrasting the Gurevich and Burgess systems. It is notable, then, that attempts to classify circus have largely remained isolated due to linguistic barriers (and to that end, we regret that we are providing this discussion only in English and French).

Even after discussing these circus classification systems, we are no closer to defining the essence of circus itself. A map of skills and apparatus cannot approximate the thrill of watching circus acts performed in real time. While classification systems are never exhaustive or strictly precise, the well-constructed ones prompt readers to discuss, discover and learn more about circus. For that reason alone, each classification system surveyed in this article is a success. As statistician George Box wrote, "All models are wrong but some are useful" (2). Circus classification may be imperfect, but it is critical in how it reveals the nature of circus.

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